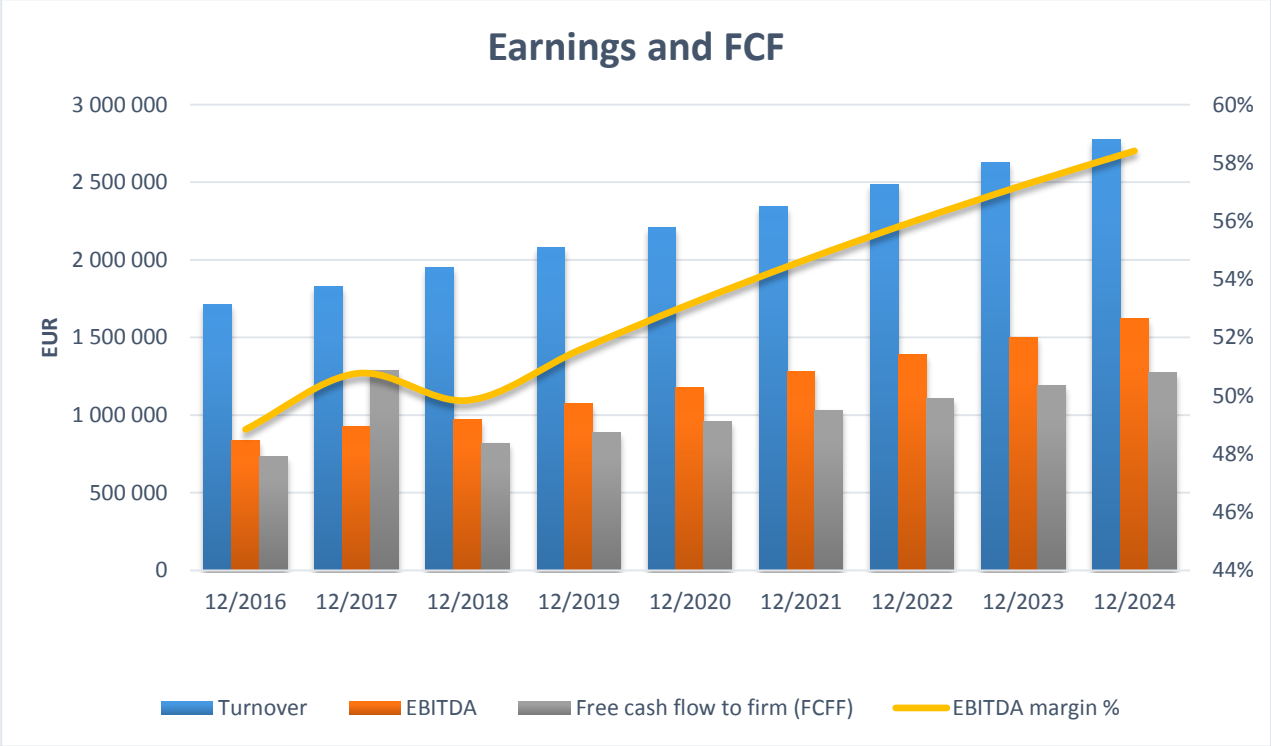
invest
FOR EXCEL

Version 3.7



User Manual

DataPartner

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1 Introduction

Invest for Excel® was originally designed for investment appraisals (capital budgeting, investment feasibility studies, investment calculations) but has evolved to be a generally applicable financial modelling software. Invest for Excel® now also supports areas of usage like:

- Valuation, mergers and acquisitions
- Business planning, budgeting, forecasting, long-term strategic planning
- Profitability analysis of projects, business, products, customers, restructuring…
- Project financing, liquidity planning, corporate finance
- Impairment testing/ recoverability test, calculating value in use
- Consolidation of group including eliminations of internal transactions
- Lifecycle costing
- Post implementation reviews / post audit calculations
- Cost comparisons

Investment problems are usually solved technically with the aid of investment calculations. The purpose of the calculations is to give the investment-decision makers basic numeric, estimable data to support investment decision-making. Furthermore, all other relevant data, including that which is difficult to estimate, will be taken into account before a decision for or against the investment is made.

The same approach can be used in calculating real investments and finance investments alike. As a result, *Invest for Excel* is equally applicable when planning an investment in equipment or bonds. The criteria to base decisions on, for example the required return on the investment, may differ.

The investment process can be divided into the following stages:

1) Finding an investment object
2) Determining the factors that make each investment alternative advantageous.
3) Making investment calculations, and comparing alternatives.
4) Planning how to finance the investment.
5) Deciding on the investment, taking into account the optional factors, as well.
6) Monitoring the investment.

1.1 System requirements

The workstation shall have at least 1 GB RAM. The program files take about 150 MB of hard disk space. Having been compiled with Visual Basic for Applications, and being based on Microsoft Excel, Invest for Excel cannot function without Excel.

Invest for Excel 3.7 runs in Excel 2007, Excel 2010 and Excel 2013. OS: Microsoft Windows XP, Windows Vista, Windows 7 and Windows 8.

1.2 Installation

Installing on a workstation or a file server

FROM CD-ROM:

1) Insert the software CD into the CD-ROM drive (or USB-stick into USB port).
2) Wait till the program starts or locate setup.exe file.
3) Follow the instructions of the installation program.

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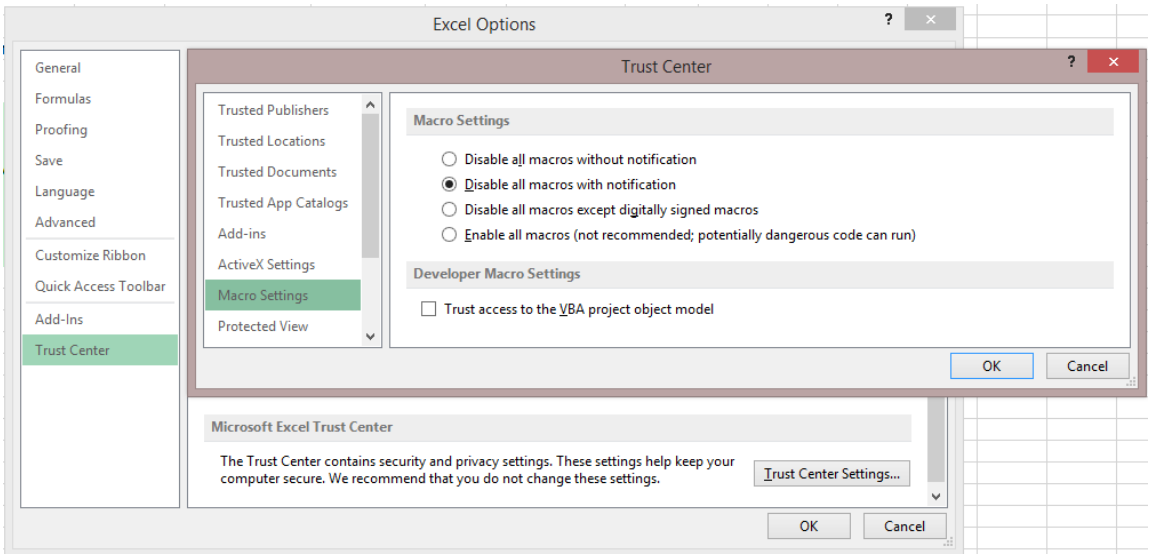
If the program doesn't start automatically then you have to click on setup.exe on your CD/USB. Note that for Excel 2003 version 3.6024 of Invest for Excel is supplied.

The installation program will create a program group named DataPartner, and add the start-up icons for the program and the manuals.

Note! Invest for Excel uses macros. Allow the use of our macros when you use the program. In Excel 2013, the Macro Settings should be "Disable all macros with notification" or "Disable all macros except digitally signed macros":



In Excel 2013 menu select "File" – "Options" – "Trust Center" – "Trust Center Settings" – "Macro Settings" – "Disable all macros with notification" or "Disable all macros except digitally signed macros".

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1.3 Solving problems

Problems with installing program update?

If the installation doesn't update the files or there seems to be something wrong with the software, try uninstalling the software before running the update. From Start > Control Panel > Programs and features (Vista/7) remove all versions of the software (this doesn't remove the calculation files you have made). Windows 8: “Control Panel> Programs>Uninstall a program”. You might also check that the installation folder is empty (usually “C:\Program Files (x86) \DataPartner\Invest for Excel”). Then reinstall the program.

Problems with taking the program into use?

Note! Our Excel programs use macros. Allow the use of our macros the first time you use the program. If nothing happens when you try to run the program, then you might have as Macro Settings “Disable all macros without notification”, in that case you need to change to “Disable all macros with notification”. The lowest security level is not recommended.

The program doesn't start?

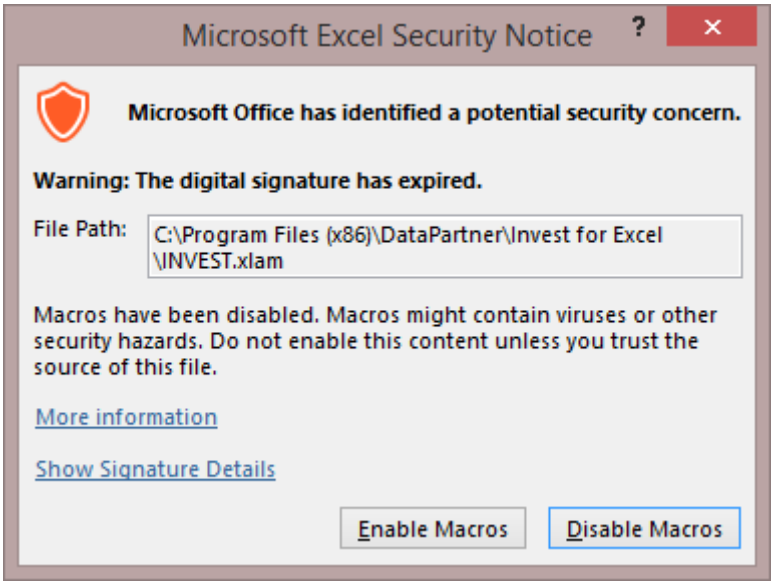
If the macro security level is high and the program doesn't start, then it is possible that the digital certificate has expired. Then you have to set the macro security level to "Medium" (in the Excel menu - "Tools" - "Macro" - "Security" - "Medium"). The lowest security level is not recommended. A new digital certificate will be distributed with the next program version.

1.4 Start-up

Invest for Excel’s start-up file is named INVEST.XLAM (Excel 2003 and older: INVEST.XLA). You can start the program in four alternative ways:

- Click **Start** – select **Programs** – **(DataPartner)** – **Invest for Excel** or
- Start Excel and select from the menu: **File – Open** and select **INVEST.XLAM**, or
- Open the file INVEST.XLAM from the file list of files in Windows Explorer, or
- Click the Invest for Excel start-up icon on your desktop.

Enabling macros:


Microsoft Excel Security Notice
Microsoft Office has identified a potential security concern.
Warning: The digital signature has expired.
File Path:
C:\Program Files (x86)\DataPartner\Invest for Excel \INVEST.xlam
Macros have been disabled. Macros might contain viruses or other security hazards. Do not enable this content unless you trust the source of this file.
More information
Show Signature Details
Enable Macros
Disable Macros

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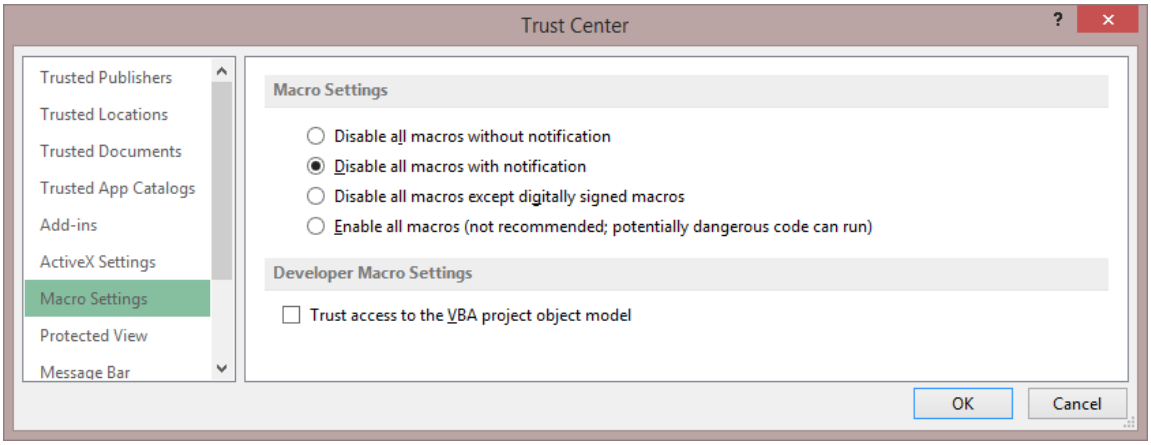
A program acquired from an unknown source may contain harmful viruses. Excel will ask you to enable or disable the macros. Select here **Enable macros** in order to activate Invest for Excel. Program files contain digital signatures. You can accept Datapartner as a reliable supplier (check "Always trust macros from this source"). This way, the Security warning dialog box will not be shown again.



Note that appearance may vary depending on the version of the Microsoft Office used.

Control number

At first start-up, a dialog box will open up asking you to enter the control number for Invest for Excel. You will find the control number on the registration card supplied with the program package. If you have lost the control number, please contact Datapartner Oy or your local reseller.

On-Screen Manual

To be able to view the Manual, you need to have the Adobe Acrobat Reader software installed in your computer. You can download it free of charge from the following Internet web site:

http://www.adobe.com, or direct from:
http://www.adobe.com/products/acrobat/readstep.html.

Note that you may also print out the manual on paper.

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1.5 Components

Invest for Excel includes the following program files:

INVEST.XLAM	The start-up file controlling other components
INVHOME.XLSM	Home screen, from which all functions of the program can be accessed.
INVCODE.XLAM	Main program code file.
INVFILE.XLTM	Template file for investment calculations.
INVCOMP.XLTM	Template file for investment comparisons.
INVPROP.XLTM	Investment proposal template.
INVFIN.XLTM	Financing template.
INVITV.XLTM	Impairment test verification template.
INVCALC.XLAM	Program code file, calculator.
INVEST.INI & INVSTART.INI	Initialisation files containing start-up information.
INVM-UK.PDF, INVM-SWE.PDF, INVM-D.PDF, NVM-FIN.PDF, INVM-PL.PDF & INVM-RU.PDF	User manuals in Acrobat Reader format.
INVGUIDE.XLAM, INVGUIFI.XLAM, INVGUISE.XLAM, INVGUIUK.XLAM INVGUIPO.XLAM, INVGUISP.XLAM	Invest for Excel Guide function in several languages
WACCENG.BMP, WACCGER.BMP, WACCSWE.BMP, WACCFIN.BMP WACCPOL.BMP, WACCSPA.BMP	WACC calculation charts.
IRibEn01.XLAM, IRibEn02.XLAM IRibFi01.XLAM, IRibFi02.XLAM IRibGe01.XLAM, IRibGe02.XLAM IRibPo01.XLAM, IRibPo02.XLAM IRibRu01.XLAM, IRibRu02.XLAM IRibSp01.XLAM, IRibSp02.XLAM IRibSw01.XLAM, IRibSw02.XLAM	Program menus

Invest for Excel automatically creates a default directory called CALC, in which calculation files can be saved. If the software is running in a network, the CALC folder must have both read and write rights.

1.6 Entering Data

As a general rule, negative cash flows should be entered as negative (-) figures, and positive cash flows as positive (+) figures. Consequently, enter costs and investments as negative (-) figures, and profits or realisations (sale of investment objects) as positive (+) figures.

You should avoid using the Cut & Paste function. Use Copy and Paste command instead.

When calculating the profitability of an investment, try to estimate the marginal effects of the investment, unless you use the Marginal effect function. It is equally important to remember not to let the expected result influence the values you enter when making investment calculations. Do not change data only to get a positive net present value (NPV) etc., always be objective when entering numbers.

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1.7 Working Order

When starting a new Investment calculation, always start by entering:

1) Basic Values and
2) Contact Information (if needed)

After that you specify:

3) Investments (capital expenditures)
4) Income and costs in the Income statement Table, and
5) Changes in working capital in the Working Capital table.

The program then calculates the following in respect of the investment:

6) Cash flow; the calculation can be supplemented with financing data.
7) Balance sheet: calculated on the basis of your data input. You may supplement the balance sheet with an opening balance.

Next you will see the result of the calculation in the

8) Profitability analysis.

Now you can analyse the effect of various variables on the profitability of the investment. These variables include:

9) Discount Rate used in calculations,
10) Total Investment,
11) Income,
12) Variable costs,
13) Fixed costs,
14) Income Variable, and
15) In addition to the above analyses, you can create analysis charts for any input variable

If necessary, you can always return to input screens to simulate different situations. That way you can have more than one variable in a chart. Remember to save your work!

If you have several alternative investment projects, you can compare them in the

16) Comparison table.

The differences between the alternatives can be illustrated using the following charts:

NPV chart, IRR chart, and Payback chart.

When you are satisfied with your calculations, you can process the results further to make an
17) Investment Proposal. Submit that proposal to the decision-makers.

18) Option: If you have the Financing module, use it to produce financing calculations. (Enterprise edition only)

19) Option: If you have created a calculation for asset impairment testing, use the impairment test verification. (Enterprise edition only)

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1.8 Home Screen (Start-up screen)

The Home Screen shows the contents and structure of the program. From here you can go to any program module. For example, click the button to the left of the text “Basic Values” to go to the **Basic Values** screen, where you begin any calculations.

The **Exit** command closes both Invest for Excel and Microsoft Excel. Remember to save your workbooks when you exit the program, otherwise your work may be lost. Please, note that the **Exit** command will also close all other Excel workbooks open at the time.

The Guide function contains useful tips about using the program. You can activate or close the Guide in the Home Screen. When starting a new function, a few tips on its use are displayed. Even when you are feeling more confident about using the program, you can check the comments on any particular part of the program by clicking on the help button when available.

Create new file.

Open saved file.

Go to file.

Centralised printing of reports (see chapter 2.9).

The **Change Language** function: By pointing to this globe button you can quickly change the language of various parts of the calculation.

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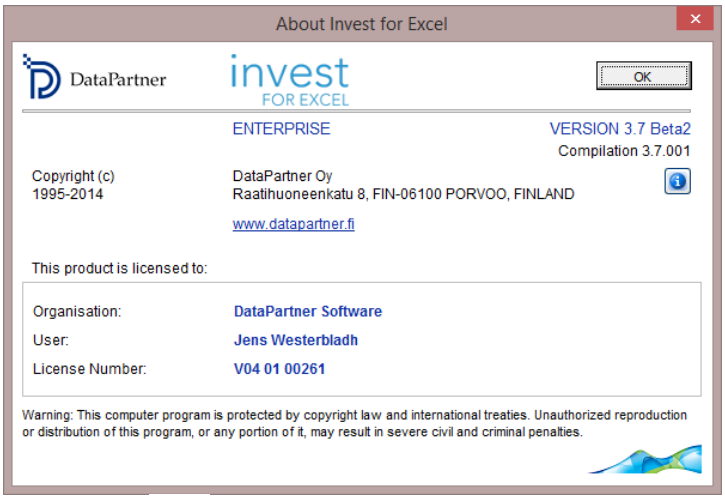
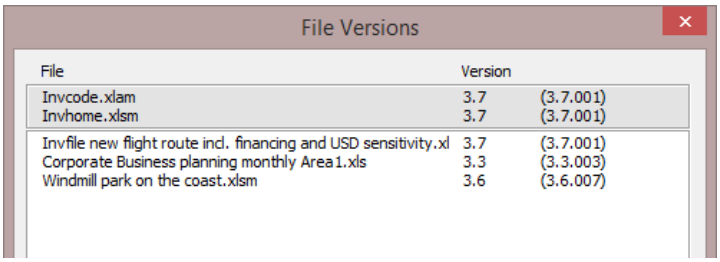
Click on the Invest for Excel logo to display information on the user licence:



Click on the -button to see in which Invest for Excel edition the open files are created:


File Versions
File
Version
Invcode.xlam 3.7 (3.7.001)
Invhome.xlsm 3.7 (3.7.001)
Invfile new flight route incl. financing and USD sensitivity.xl 3.7 (3.7.001)
Corporate Business planning monthly Area1.xls 3.3 (3.3.003)
Windmill park on the coast.xlsm 3.6 (3.6.007)

1.9 General buttons

Button	Description
	Print current table.
	Move to previous table
	Move to next table.
	Move to the Invest for Excel home page.
	Create chart.
	Show help for current table.
	Pressing the camera button will place a picture copy of the table or chart in the clipboard. The picture can then be pasted into another sheet, document or software. See 1.9.1 Picture copy below.
	Unfreeze/freeze column headers (Calculation sheet)

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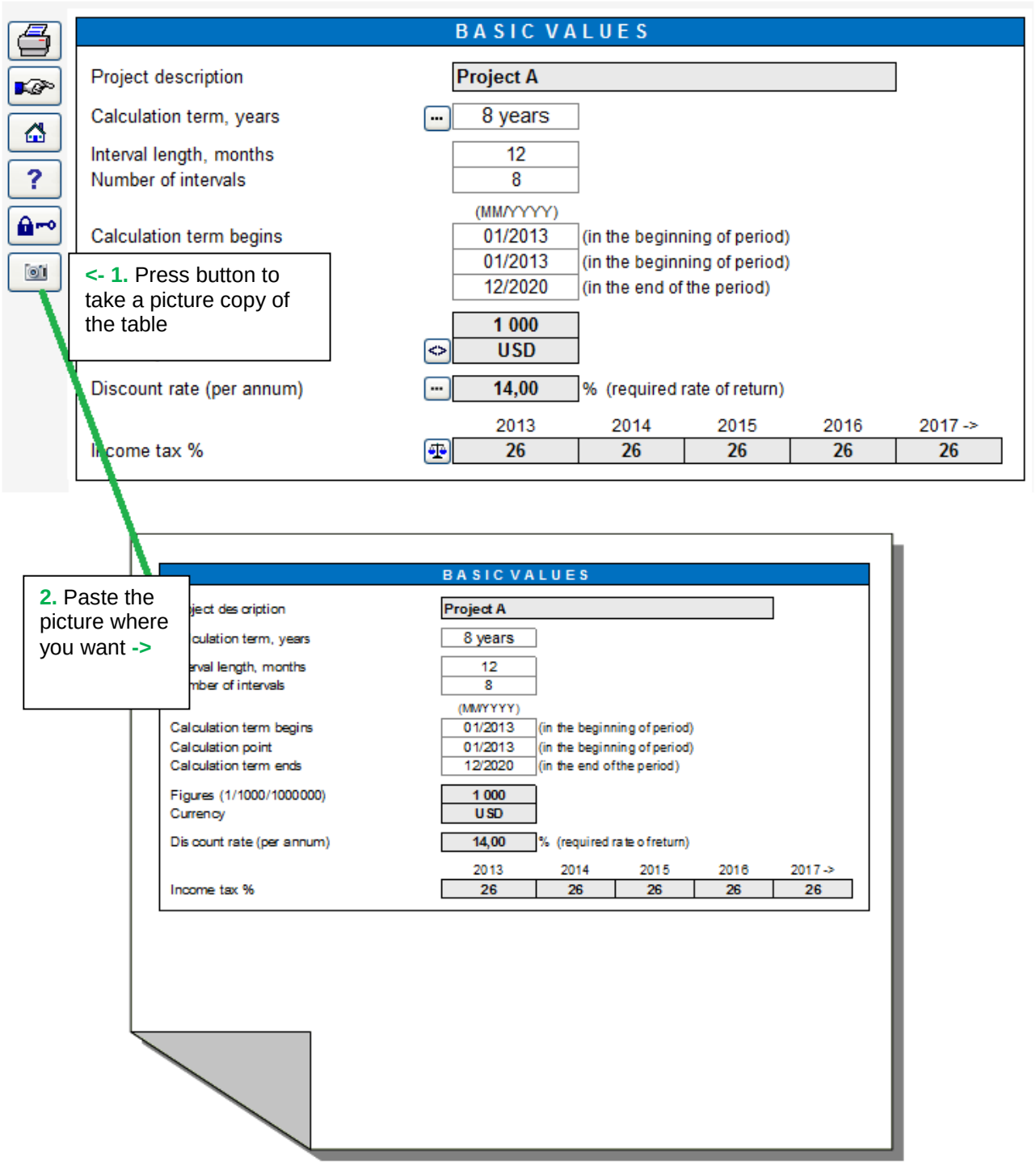
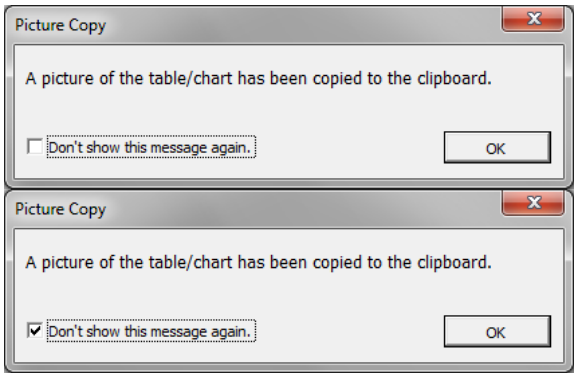
1.9.1 Picture copy

Invest for Excel files created with version 3.7 (or newer) templates have camera buttons at each table. Pressing the camera button will place a picture copy of the table or chart in the clipboard. The picture can then be pasted into another sheet, document or software.

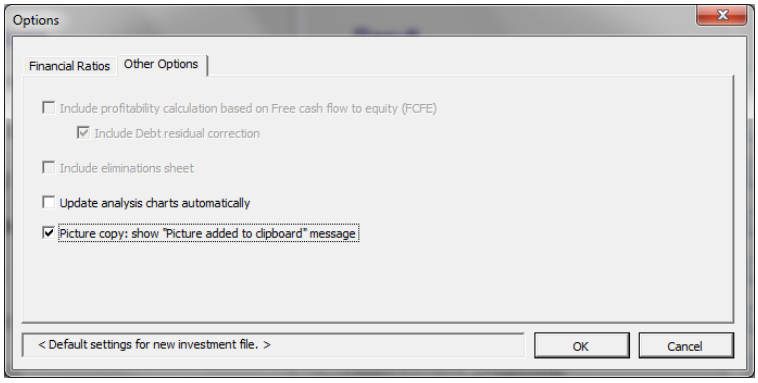


By default, a message is displayed telling that a picture has been copied to the clipboard.


Picture Copy
A picture of the table/chart has been copied to the clipboard.
Don't show this message again.
OK
Picture Copy
A picture of the table/chart has been copied to the clipboard.
Don't show this message again.
OK

Check “Don’t show this message again” before pressing OK, if you don’t want this message to be displayed again.

If you want to have the message displayed again, go to Invest for Excel’s Options and check “Picture copy: show "Picture added to clipboard" message”.

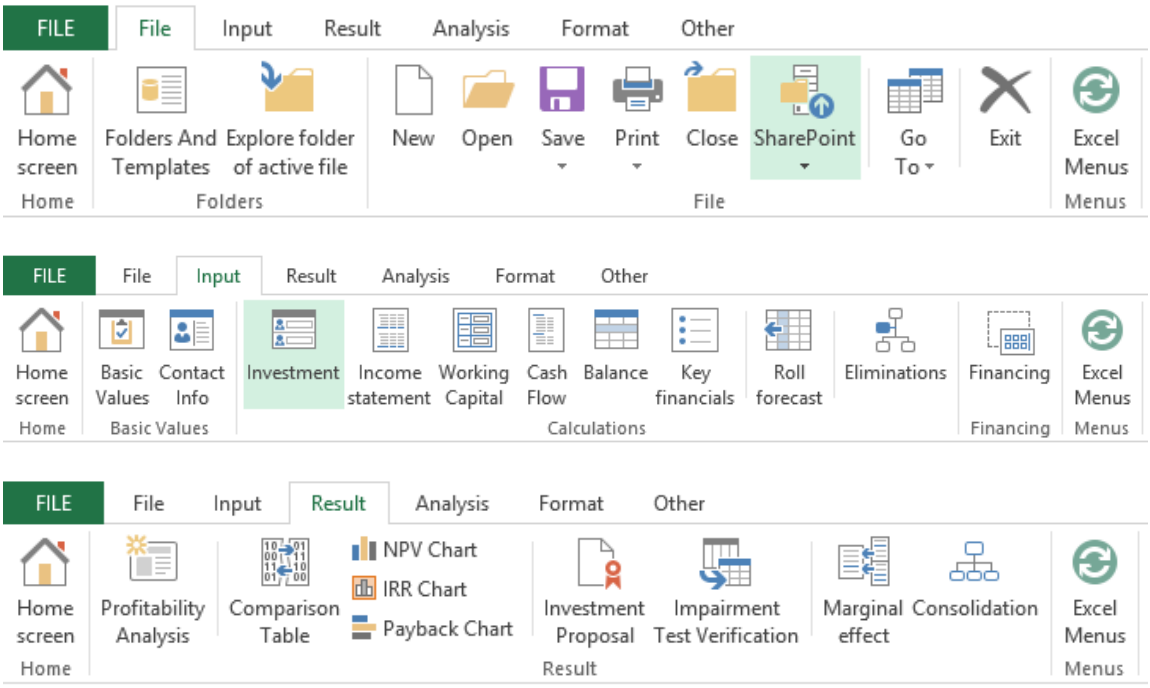


This function can also be applied by pressing Shift while clicking the button. This way it can be used in calculation files created before version 3.7, which don’t have camera buttons!

1.10 Invest for Excel menus

The Excel ribbon menu is modified to include Invest for Excel commands.

Invest for Excel menus



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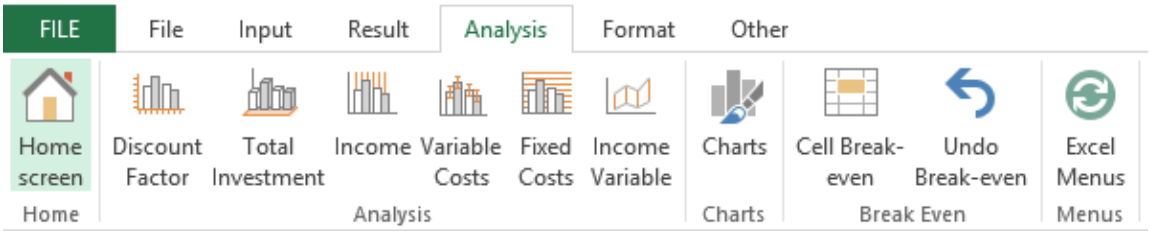
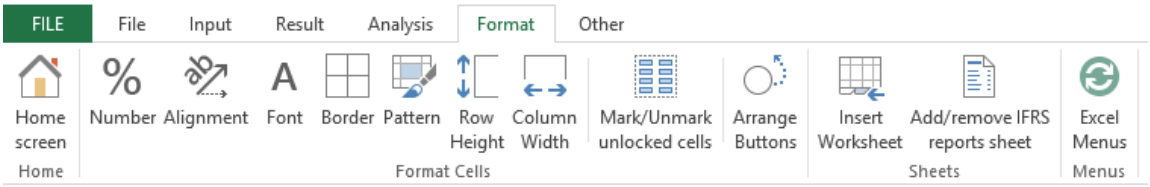
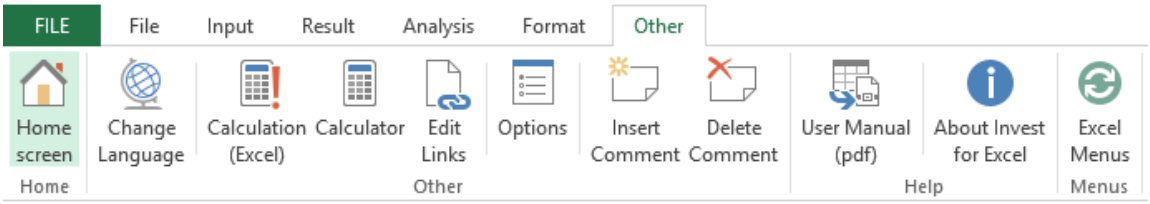
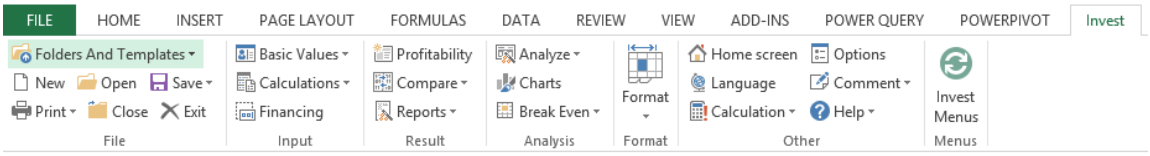






Excel menus



You can switch between Excel and Invest for Excel menus at any time by pressing:

or

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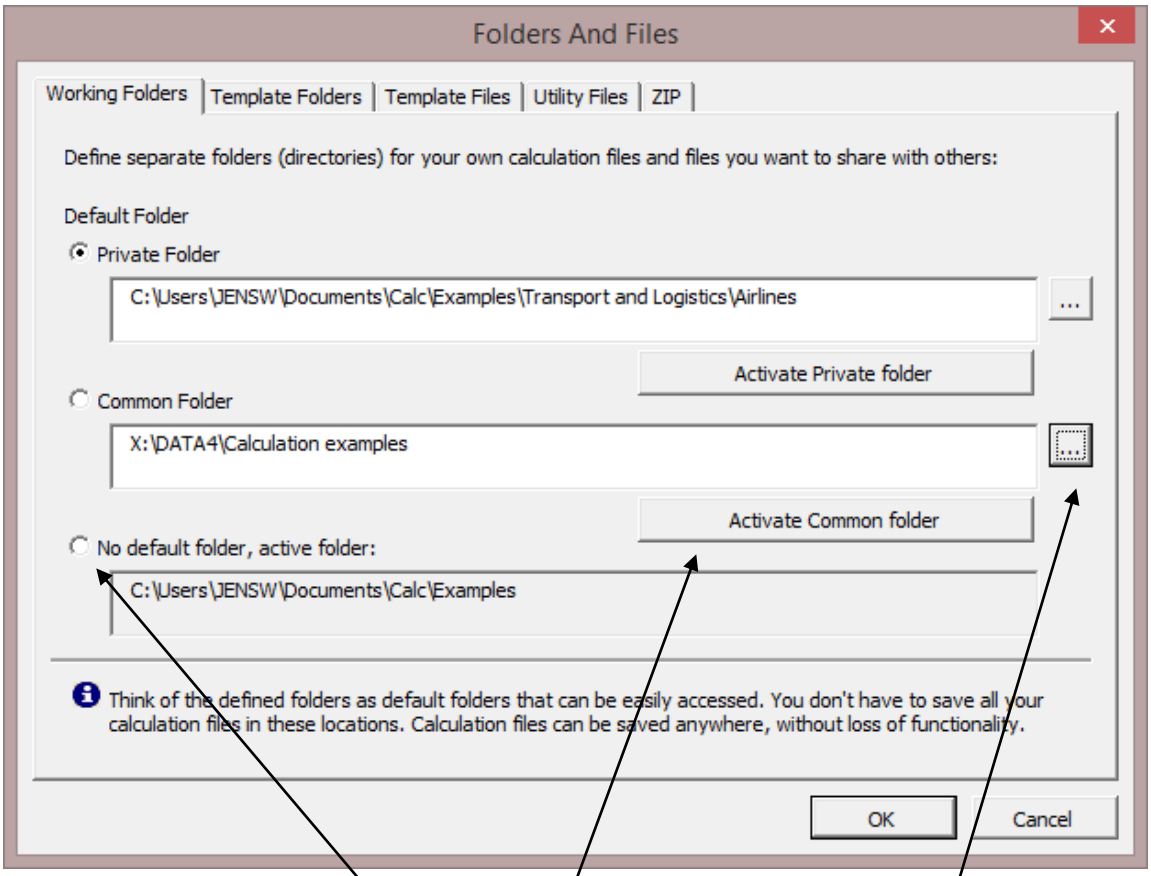
2 File commands

2.1 Folders and Files

2.1.1 Working Folders

By defining the folder, you decide on the name and path of the folder where you primarily save your calculations. You can have both a *private* folder and a *common default folder*. When you do calculations for your own use you save them in your *private folder*. When you want calculations to be shared with others, save them in the *common folder.* The private folder is normally located in a folder that only you have access to, and the common folder is located on a shared server.

Place the folder in a place on the server of which backups are taken automatically. Ask the PC Administrator to create on the server a common folder with read and write access for anybody doing investment calculations.


Folders And Files
Working Folders
Template Folders
Template Files
Utility Files
ZIP
Define separate folders (directories) for your own calculation files and files you want to share with others:
Default Folder
Private Folder
C:\Users\JENSW\Documents\Calc\Examples\Transport and Logistics\Airlines
Activate Private folder
Common Folder
X:\DATA4\Calculation examples
Activate Common folder
No default folder, active folder:
C:\Users\JENSW\Documents\Calc\Examples
Think of the defined folders as default folders that can be easily accessed. You don't have to save all your calculation files in these locations. Calculation files can be saved anywhere, without loss of functionality.
OK
Cancel

Define which folder you will use more often (the default folder), or select “No default folder”, meaning that the last used folder is active when opening and saving files.

It’s possible to activate Private or Common folder at any time by pressing the activate buttons.

Define the path to the folder by typing it in, or by clicking on the button on the right hand side.

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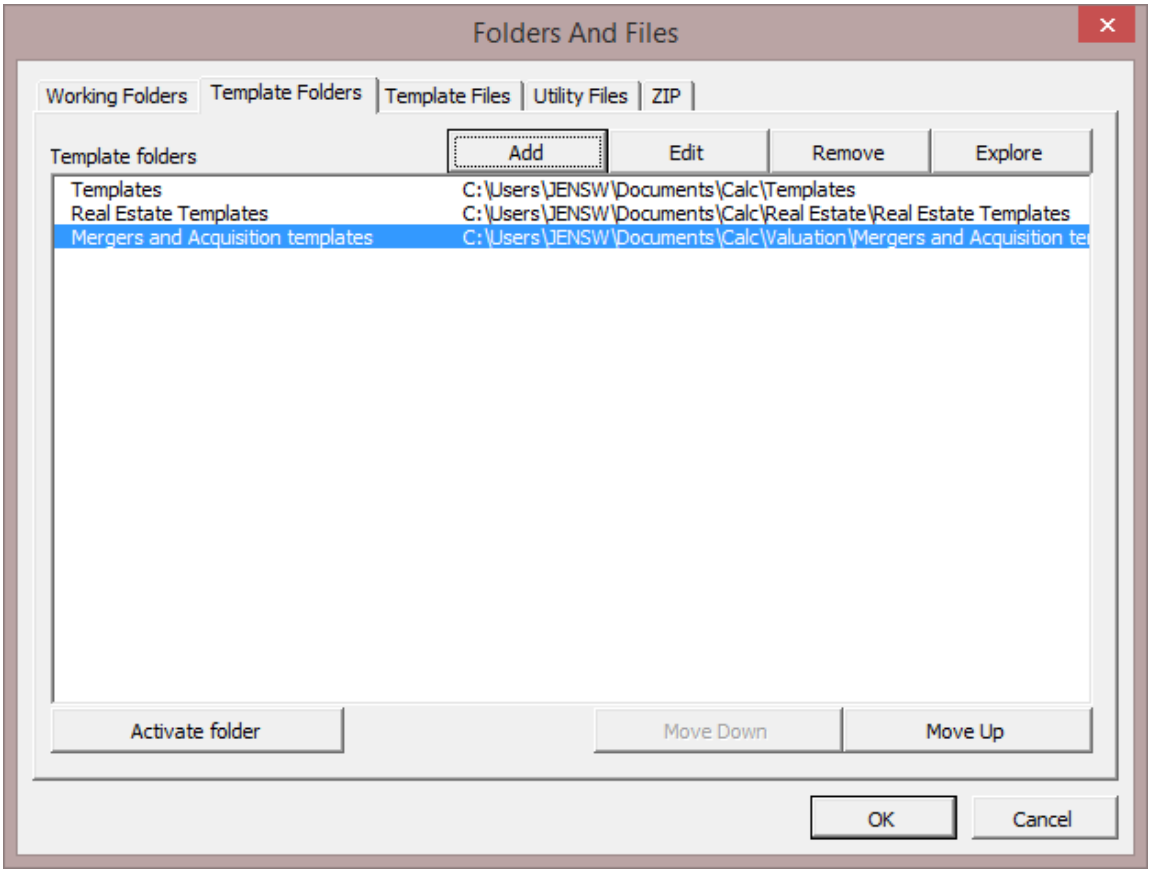
2.1.2 Template Folders

Templates are modified Invest for Excel files to be used as templates when starting a new calculation. E.g. the user wants own headers and footers, some pre-entered information, some pre-selected settings, some hidden rows, some renamed rows, pre-set depreciations, asset types and tax settings and some restrictions in user rights.

Template folders are folders where you save your templates. Here you can tell the program where your templates are located. When you create new files, you may choose whether you start from Invest for Excel's standard template or from one of your saved templates.



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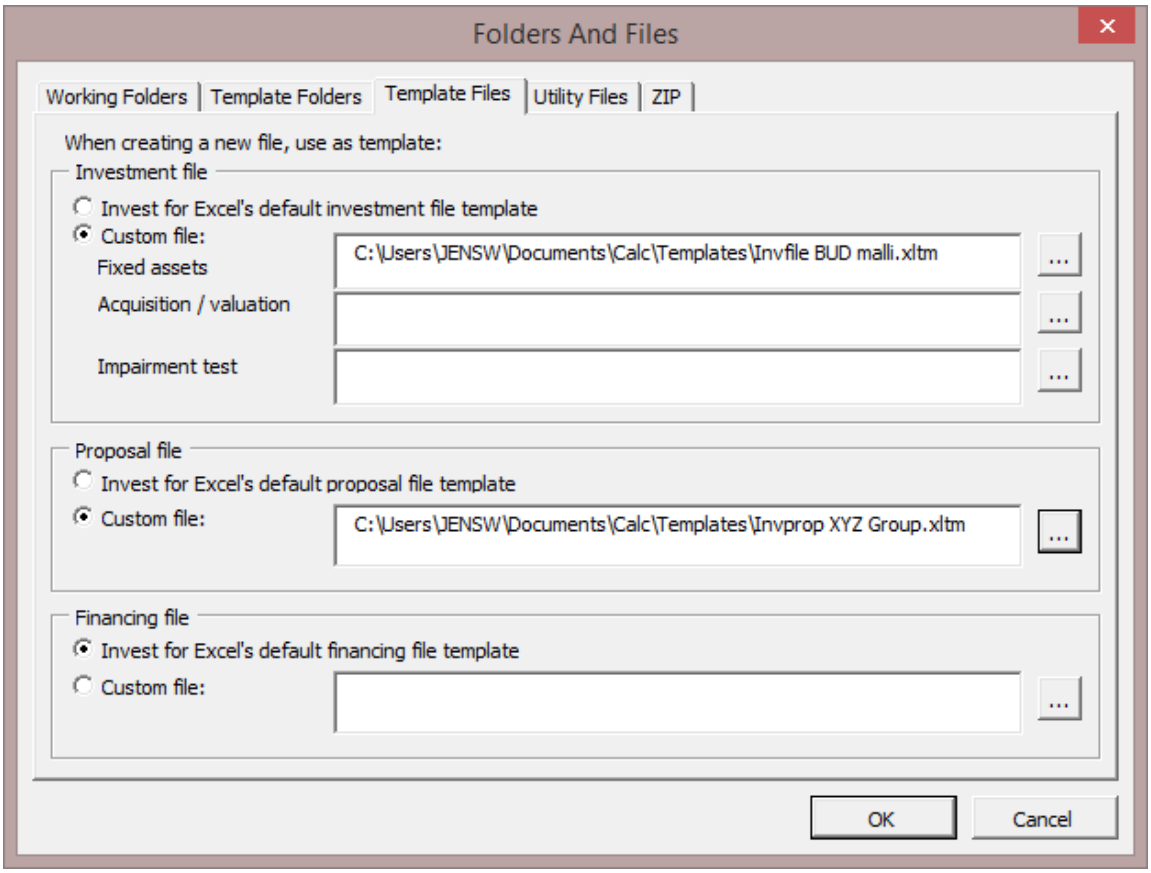
2.1.3 Template Files

By specifying template files, you decide whether to use the standard templates of Invest for Excel (default templates) or your company's own template.

You can either enter the path to your own folder, or find it by clicking the button on the right hand side.

If management wants to direct the calculation by setting certain default values, they can be put in customised templates for use in certain investment projects. The investment requests can also be customized according to the customer's wishes. In that case, the customer specific Proposal File shall be saved as the default template.

You can change the template in this dialogue box. Find it by clicking in the **Home Screen,** or in Invest for Excel's own **File** menu.



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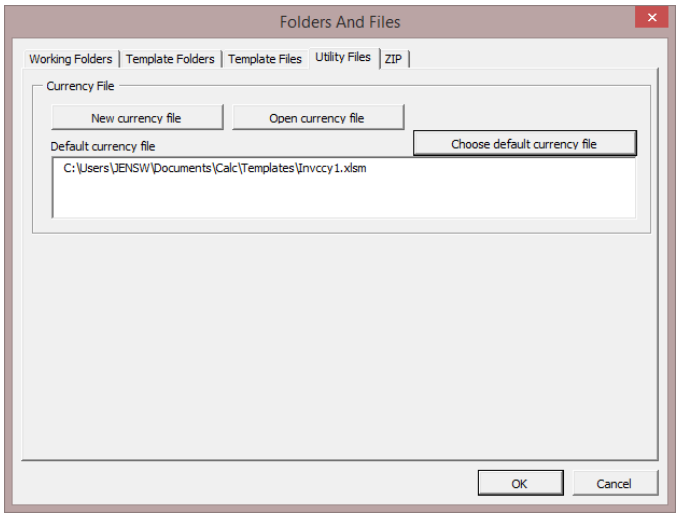
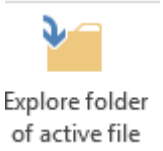
2.1.4 Utility Files



In the Utility files tab you can define default currency file, create a new currency file and open existing currency file. A currency file includes exchange rates for currencies.

2.2 Explore folder of active file



'Explore active file folder' opens a new Explorer window showing the folder for the active file.

2.3 New

When creating a new calculation, comparison, proposal or financing file, go to Invest for Excel's own **File** menu, and select the command **New…**.

- To make a new calculation, select **New Calculation file,**
- To compare the results of different calculations scenarios, select **New Comparison File,**
- To make an investment proposal, select **New Investment Proposal,** or
- **New Financing File,** to plan debt financing.
- **New Impairment test verification** for a detailed impairment test verification.
- **New Currency File** to create a new list of currency conversion rates

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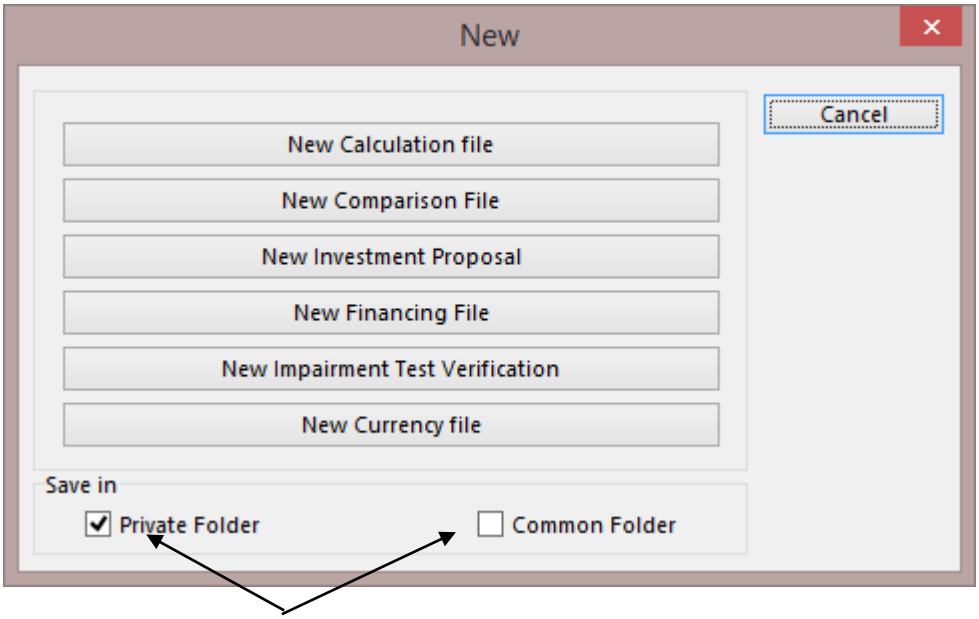
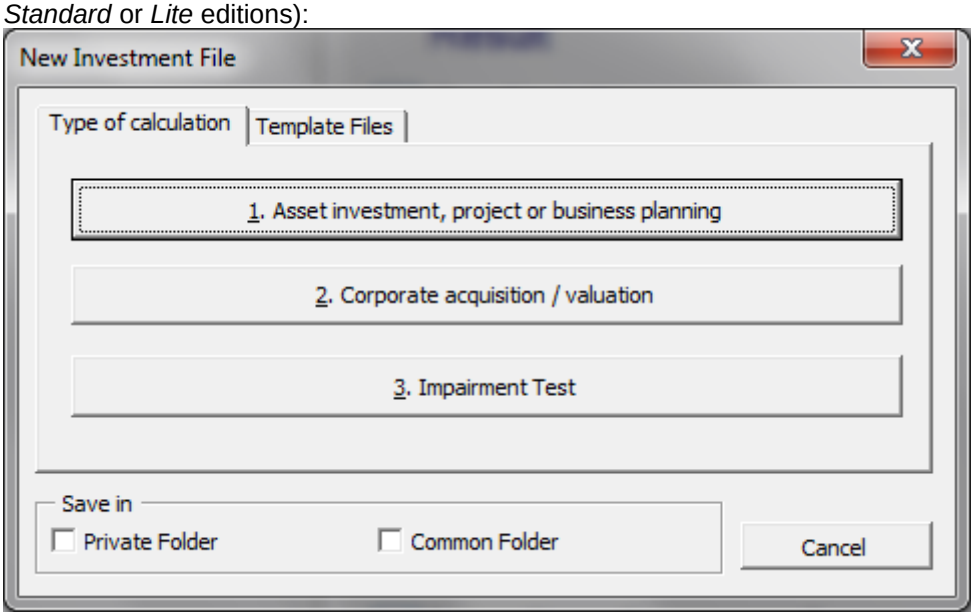


Choose here if you want to save the file in your private folder (default) or in the common folder (e.g. on a file server). If neither is selected then the last accessed folder is used.

When you choose 'New Calculation file' and you are using the *Enterprise* edition of Invest for Excel you will get a new menu to select the main type of template (this doesn't apply for *Pro*, *Standard* or *Lite* editions):



For capital budgeting, financial modelling, profitability analysis, business planning. Lifecycle costing and product calculations, choose: **'1. Asset investment, project or business planning'**.

Choose '**2. Corporate acquisition / valuation'**, for valuation of a company/ business, for mergers and acquisitions and if you want to see how long term planning affects the equity value of the corporation. This alternative provides extra lines showing group effects of acquisition. This function requires the **Enterprise** edition. Please refer to 'Corporate acquisition calculations' in Section 10 for more information.

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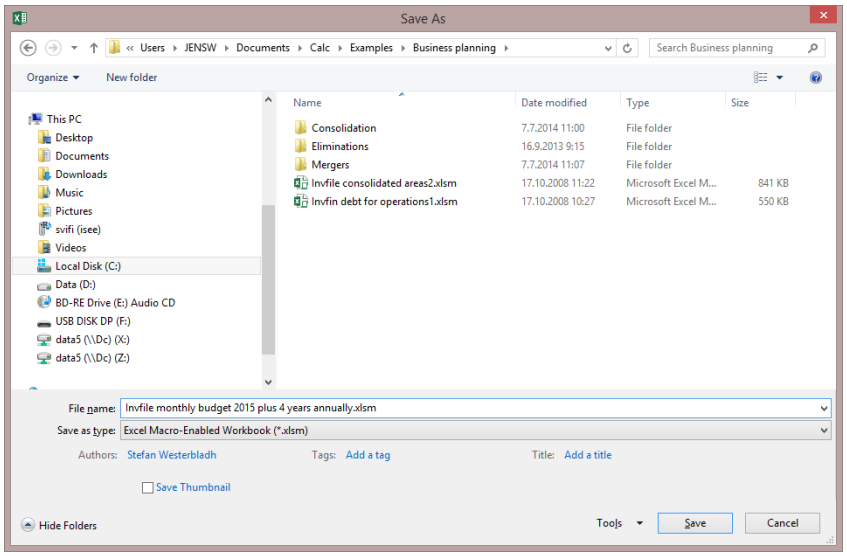
Choose **'3. Impairment Test'** if you want to do an impairment test/ recoverability test on existing goodwill and assets. The created file is an asset investment calculation file with the following settings:

- Calculation term is five years by default.
- Calculation point is locked to the start of the calculation term. This is because compounding is not recognized in accounting standards.
- The result sheet shows an impairment test calculation in addition to the standard profitability key figures.
- The result sheet holds a button for creating/updating an impairment test verification.

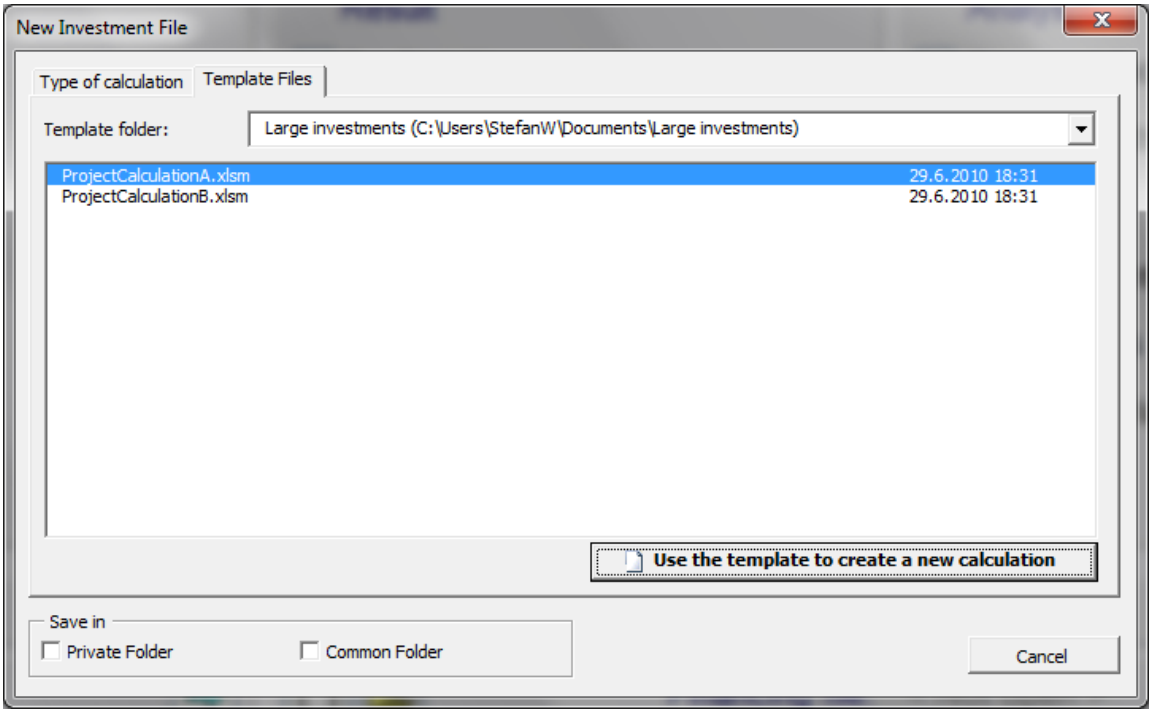
It is advisable to name the file and choose the folder at this point:



Replace the name and path suggested by the program with a suitable descriptive file name, in order to find your calculations easily on later occasions.

However we do recommend to keep the 'Invfile' – word in the beginning of the name in order to separate different types of Invest for Excel files.

Select the "Template Files" tab if you have premade template files in template folder. Choose the template you want and press "Use the template to create a new calculation":



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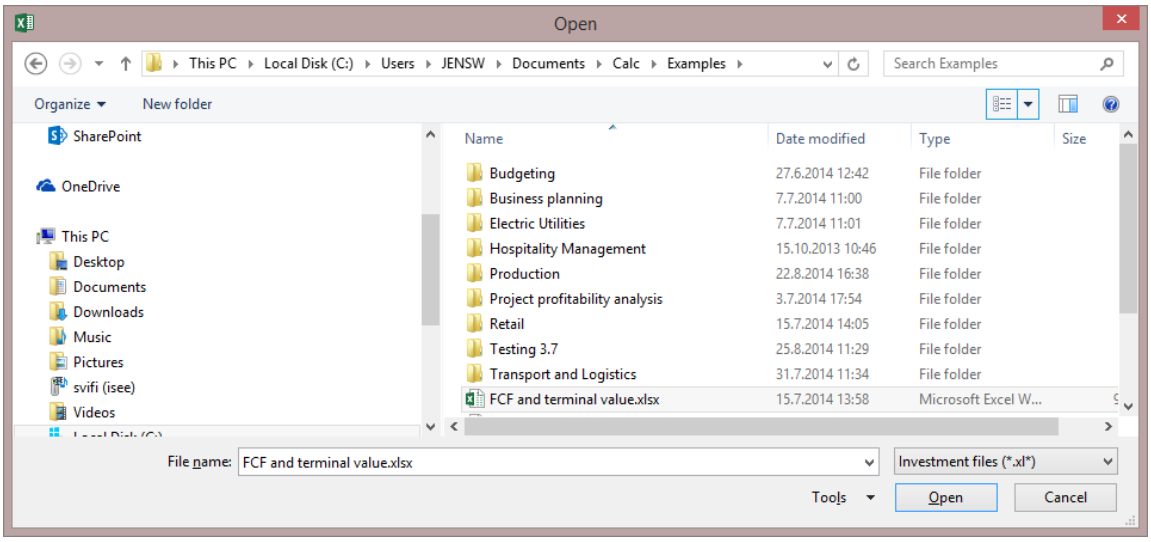
2.4 Open

Go to the **File** menu and select **Open…** to open a previously saved file:



The appearance of the dialogue box differs to some extent depending on the operating system and version of Excel used. Note that, if you use Microsoft Excel's Open function, you will be prompted to activate macros.

You can open a file from any drive and folder. When you start Invest for Excel, it activates the default folder you have specified. If you do not choose to save the files in another folder, Invest for Excel automatically saves all calculation files in this folder. You can also open other Excel files with this function.

2.5 Close

The **Close** function of the **File** menu will close the active Excel workbook, as the same function in Excel would do. If you have made changes to the file after last saving it, the program asks you “Do you want to save the changes you made to [file name]?”:

2.6 Save

To save the file, left click the **File** menu, then select **Save** or **Save as** (or Save To Zip file or **Save Snapshot**).The operating system may limit the use of certain symbols or characters in the file name.

When you save a file by choosing **Save** in the **File** menu (or by clicking on the floppy icon in the toolbar on top), the file is saved in the active folder. The file will retain the name it had when you opened it, or given to a new file when created. It is safer to select the **Save as…** function, which allows you to specify folder and file name to use.

The appearance of the Save As dialog box differs depending on the operating system and version of Excel used.

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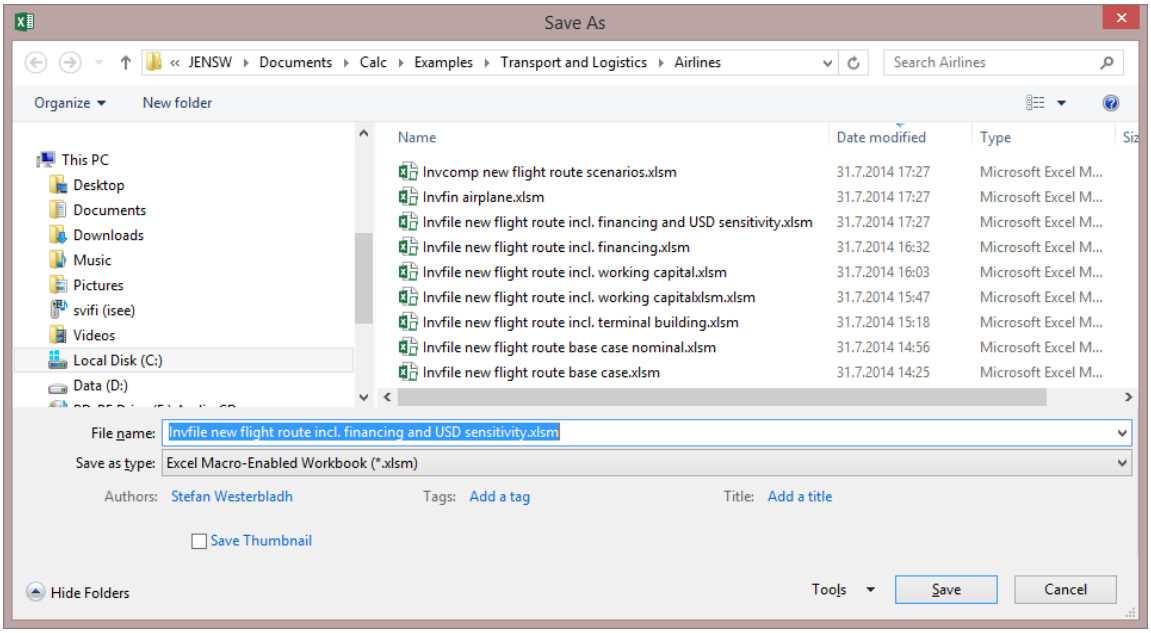
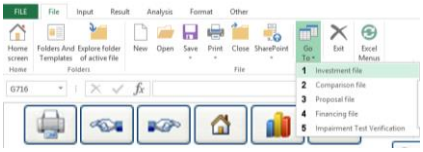
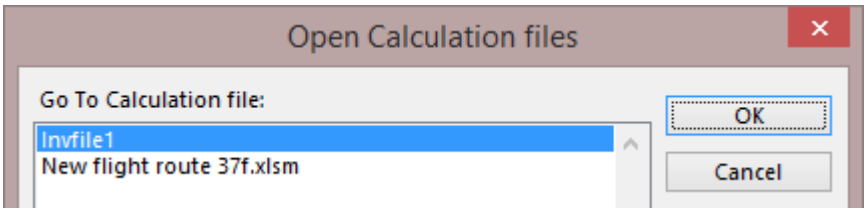

Save As
JENSW ▸ Documents ▸ Calc ▸ Examples ▸ Transport and Logistics ▸ Airlines
Search Airlines
Organize
New folder
This PC
Desktop
Documents
Downloads
Music
Pictures
svifi (isee)
Videos
Local Disk (C:)
Data (D:)
Name
Date modified
Type
Invcomp new flight route scenarios.xlsm 31.7.2014 17:27 Microsoft Excel M...
Invfin airplane.xlsm 31.7.2014 17:27 Microsoft Excel M...
Invfile new flight route incl. financing and USD sensitivity.xlsm 31.7.2014 17:27 Microsoft Excel M...
Invfile new flight route incl. financing.xlsm 31.7.2014 16:32 Microsoft Excel M...
Invfile new flight route incl. working capital.xlsm 31.7.2014 16:03 Microsoft Excel M...
Invfile new flight route incl. working capitalxlsm.xlsm 31.7.2014 15:47 Microsoft Excel M...
Invfile new flight route incl. terminal building.xlsm 31.7.2014 15:18 Microsoft Excel M...
Invfile new flight route base case nominal.xlsm 31.7.2014 14:56 Microsoft Excel M...
Invfile new flight route base case.xlsm 31.7.2014 14:25 Microsoft Excel M...
File name: Invfile new flight route incl. financing and USD sensitivity.xlsm
Save as type: Excel Macro-Enabled Workbook (*.xlsm)
Authors: Stefan Westerbladh
Tags: Add a tag
Title: Add a title
Save Thumbnail
Hide Folders
Tools
Save
Cancel

If "Save As…" is used, you will be prompted to replace any existing files.

2.6.1 Working simultaneously on several calculations

Invest for Excel supports simultaneous handling or processing of several calculation files. When you change from one function to another (for example via File>Go To>1 Calculation file), the program displays a list of all files related to that function. In order to choose the file you want, just click on the appropriate name. The situation could look as follows:





The same function applies to other type of files; you can work with several files at a time.

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2.7 Save Snapshot

”Save Snapshot” creates a light (file size about ¼ of original size) copy of active calculation file. The Invest for Excel formulas are deleted, the cells contain only values, and all cells are locked. Buttons and program macros are also left out. Date and time (“YYYY-MM-DD_HH-MM-SS”) is added to file name.

NO CHANGES ARE MADE TO THE ORIGINAL CALCULATION FILE.

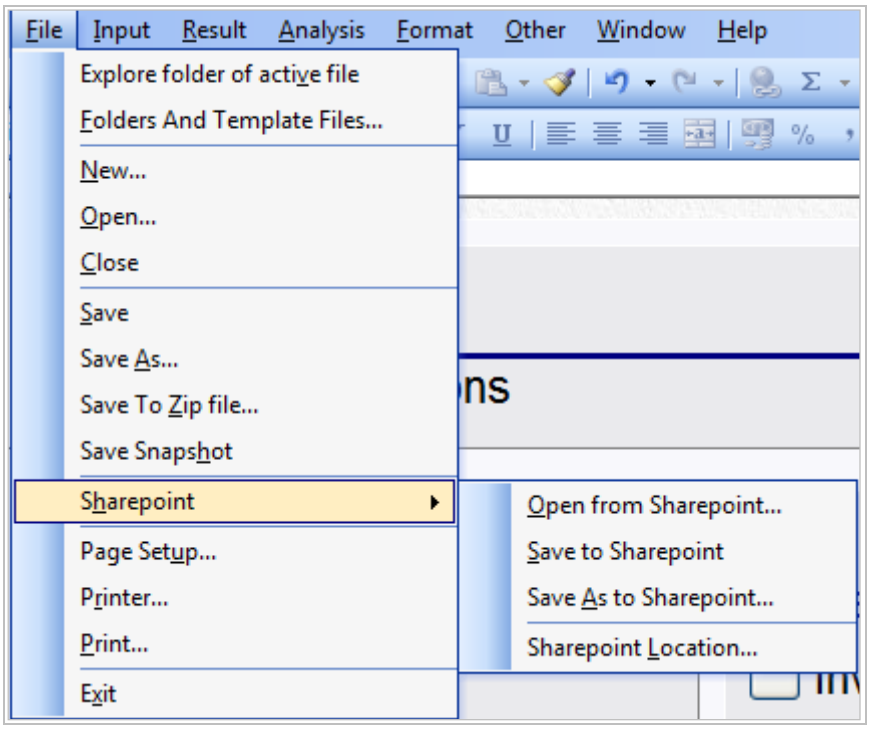
Example uses:

- Thanks to the fact that numbers can’t be changed in a Snapshot file, it can be for documentation and reporting issues (for example: as addendum for investment proposals, for post audit purposes, for banks within finance talks).
- The Snapshot-file does not include program buttons or program macros, so the file can be given to a person who does not have Invest for Excel.
- The Snapshot-file is suited for sending via e-mail, thanks to the small file size.

NOTE! Hidden rows can’t be unhidden in a Snapshot file.

2.8 SharePoint file menu

A SharePoint file menu has been added for quick open from and save to a SharePoint location. (Enterprise -edition is required)



To set default SharePoint location, select SharePoint location in the Invest for Excel SharePoint menu.

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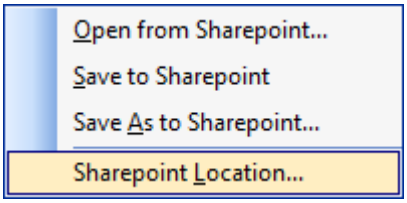
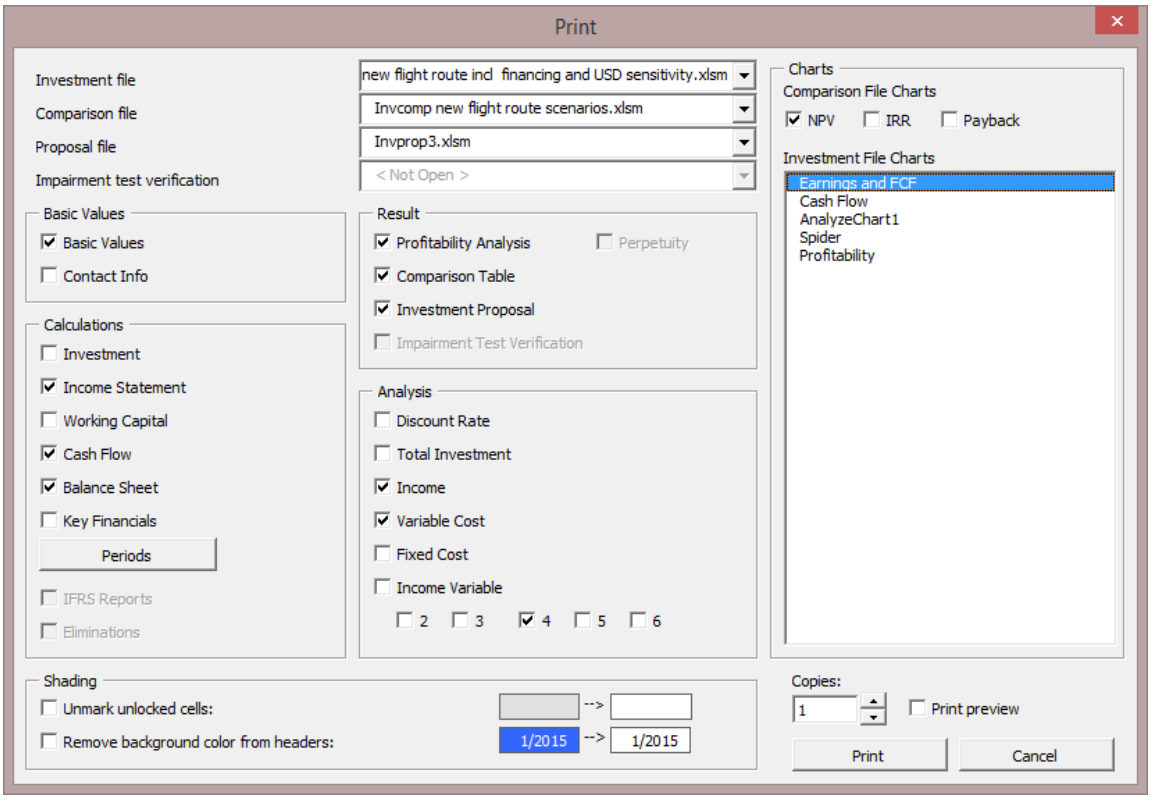


Enter SharePoint location and press OK.

2.9 Print

Select the reports to be printed:



Select what you want to print and from which files, and then click the **Print** button. You can also select the number of copies to print. **Preview** is a good way to ensure that you get what you intend to print. In **Preview,** you can use all Excel's printing options to make the hard copy look the way you want it to look. Please note that the charts you have created are listed to the right of the dialogue box, and they can be selected to the print queue.

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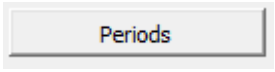
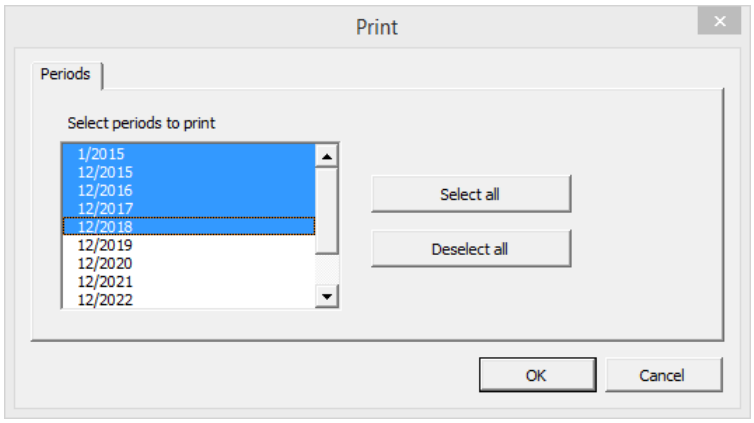


You may select the columns to be printed (e.g. only the 1st five years). When you press the Periods… -button, the following dialog box appears:

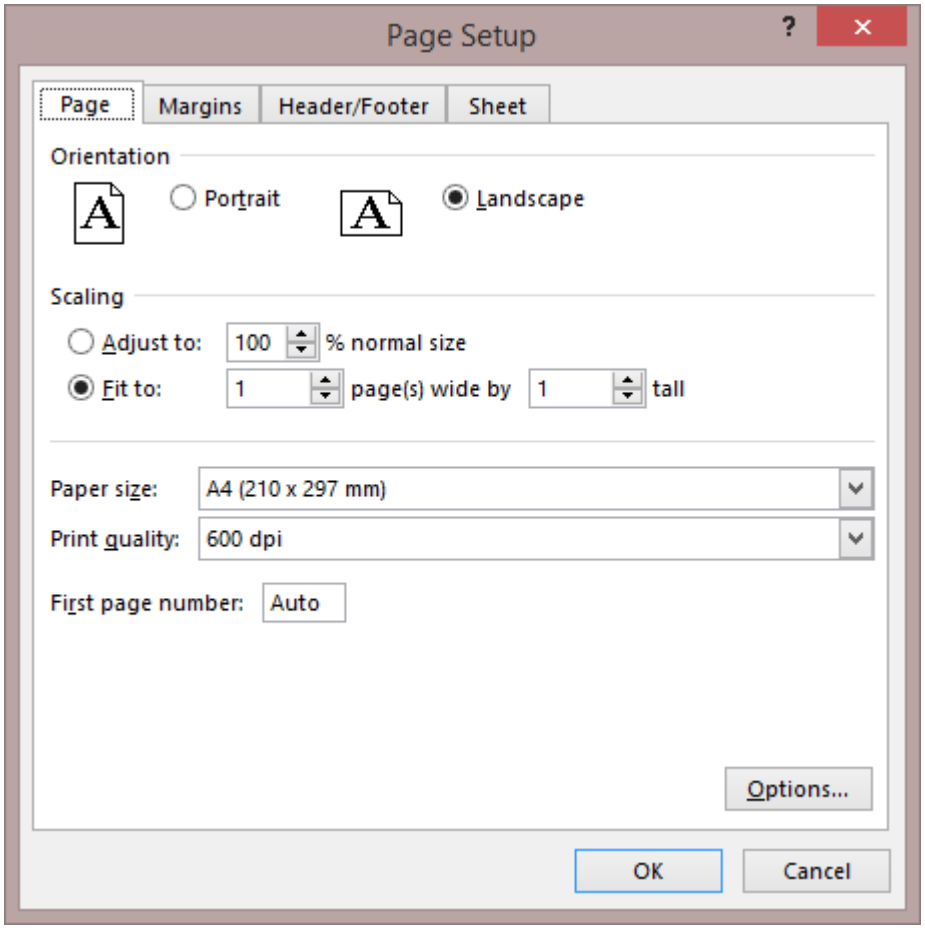


The periods marked blue will be printed.

Each screen of the program also has a **Print** button for printing the active screen.

2.10 Page Setup

An Excel function for changing the page setup for printing. Refer to Excel's Help function for further information.



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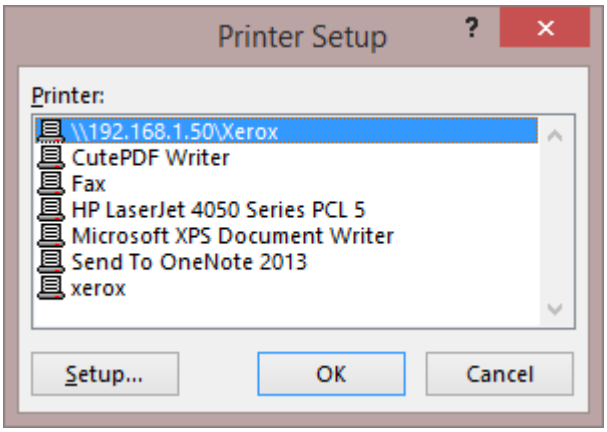
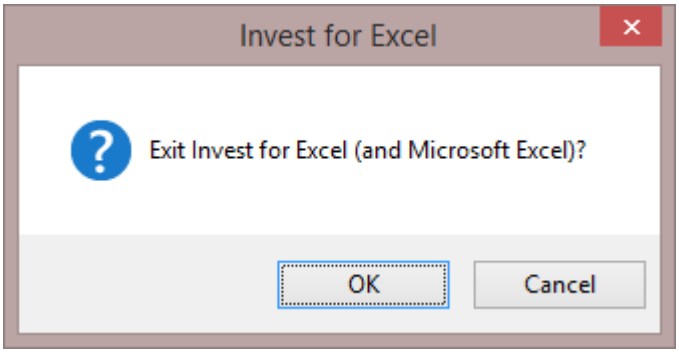
2.11 Printer

To select the printer, go to Invest for Excel's own **File** menu and click on **Printer**.



2.12 Exit

To exit Invest for Excel, go to the **File** menu and click **Exit**. A confirmation message is shown.



The program asks you whether or not to save the changes made to any open Excel workbooks since they were last saved.

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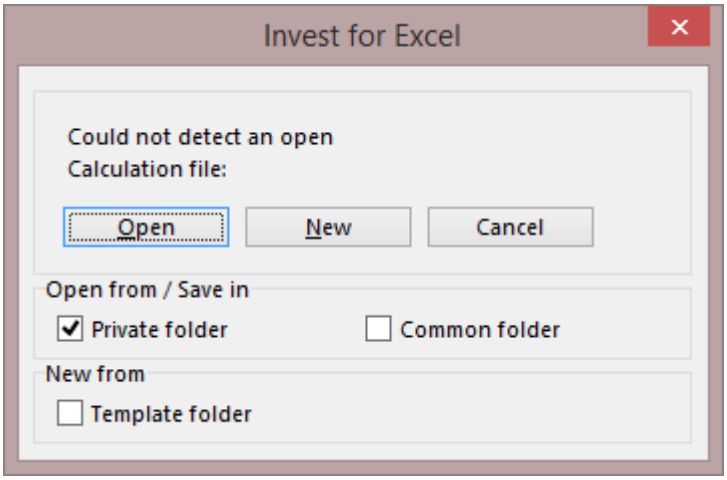
3 Input

3.1 Basic Values sheet

You begin your investment calculation, entering the basic values. Go to the **Input** menu to access the **Basic Values** screen. Alternatively, you can click the **Basic Values** button in the Home Screen. Press **New** if you don't have a calculation file open.



To open a new calculation file, select the command "**New**", or to open a previously saved calculation file, select "**Open...**".

3.1.1 Calculation term

When you start a new calculation file, the **Calculation term** dialog box is automatically shown. You have to select the total time span (term) for your calculation.

By default, the calculation term is defined on a yearly basis.

A more detailed approach can be selected, where the investment term can be split into two phases, in order to enable calculation intervals of variable lengths. The phases can be divided into intervals ranging from a month for the most detailed, to a year for a rough calculation. The idea is to allow monitoring of the different phases, such as the initial phase (Phase 1), and the actual implementation phase (Phase 2) in more, or alternatively less detail.

You can open the Investment term dialog by clicking the ... button in the **Basic Values** screen.

The calculations sheet is limited to 240 columns. It is advisable to use a calculation term that corresponds to the useful life of the investment object. Ideal term would be the *economical life* of the object, or if it is not known, the *technical life* of the object, or if neither is known, the *depreciation period* of the object. A shorter investment term can also be used, as long as residual value of the project is included.

Select the month in which the company's financial year ends (default is December). The program automatically divides the calculation intervals into financial years. This is particularly significant if the financial effect of depreciation and taxation on are taken into account.

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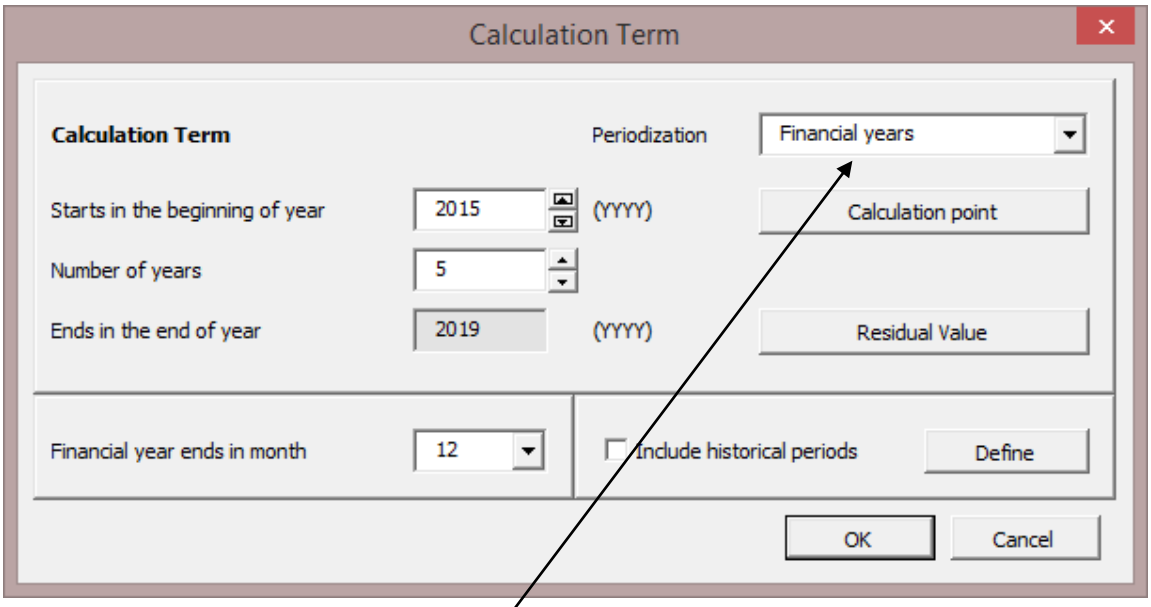
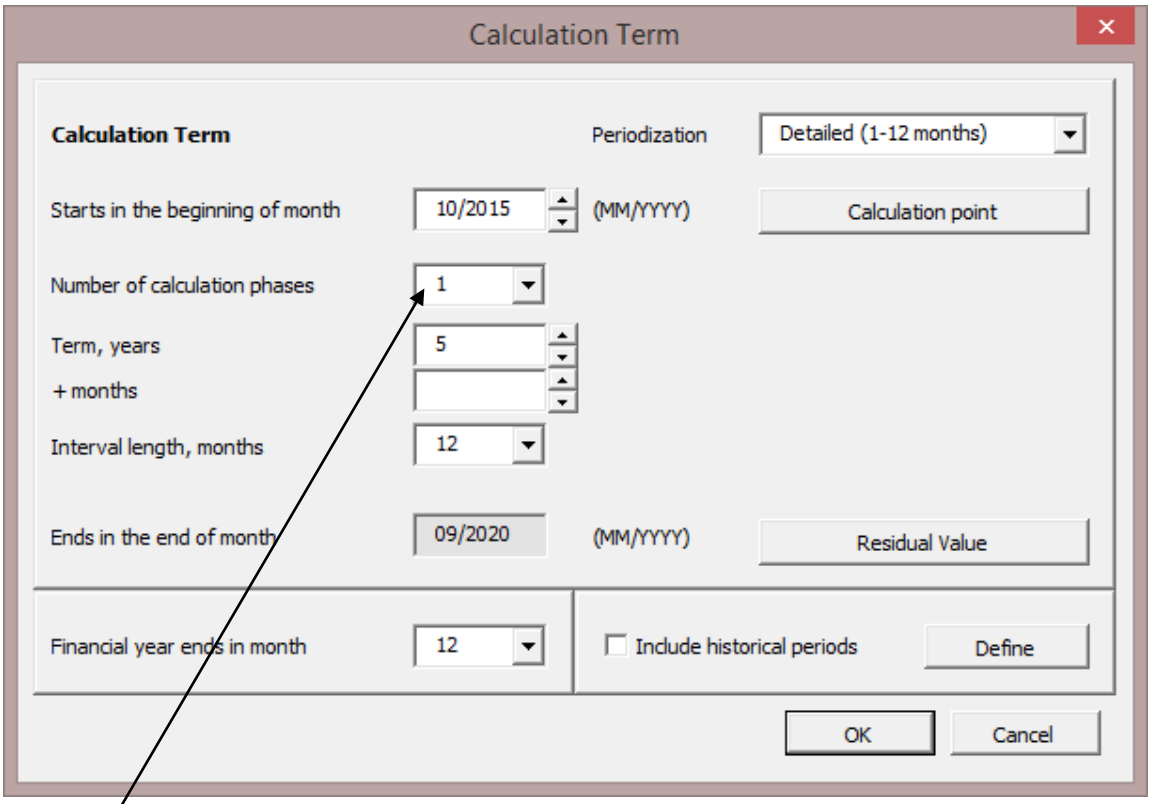


You may define the calculation term in financial-year intervals or more detailed. If you are making a calculation on annual basis, just press OK.



A detailed calculation term may hold one or two phases. The calculation term can be split in two calculation phases with different interval lengths, e.g. phase 1 on quarterly basis and phase 2 on annual basis.

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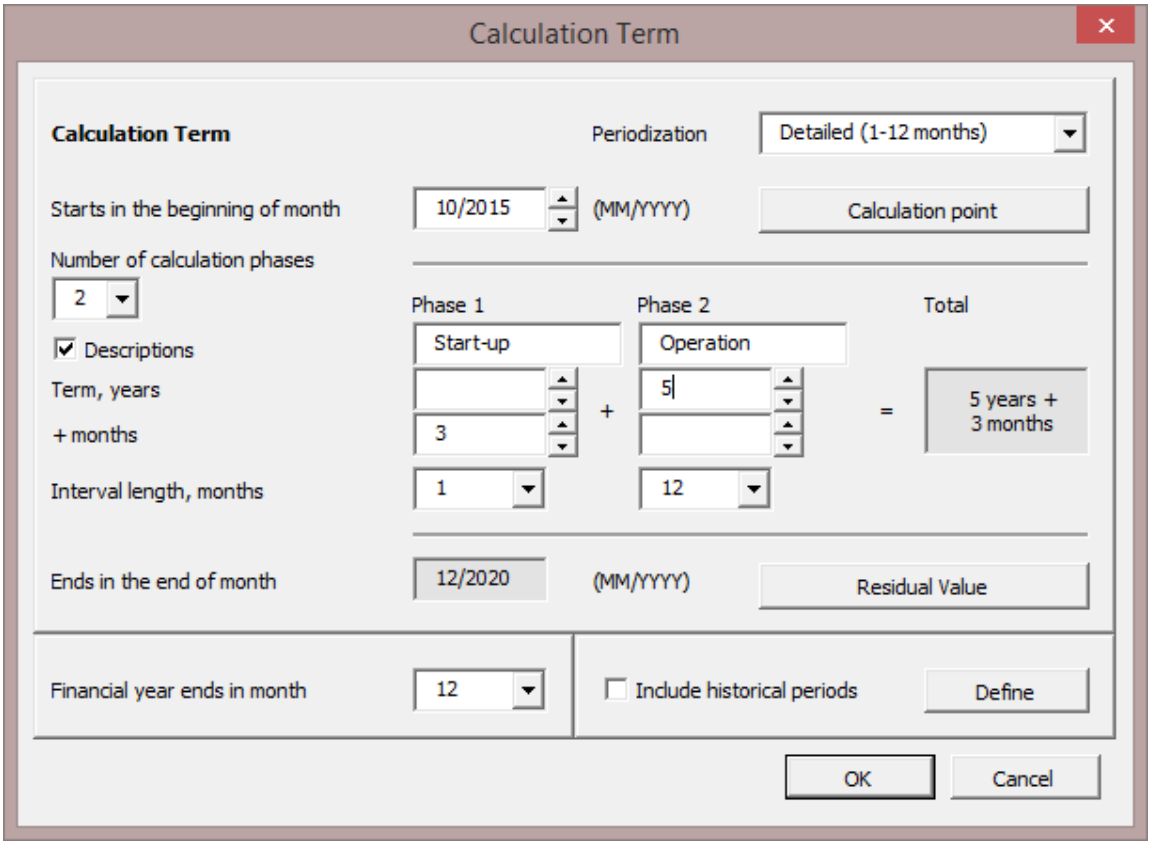
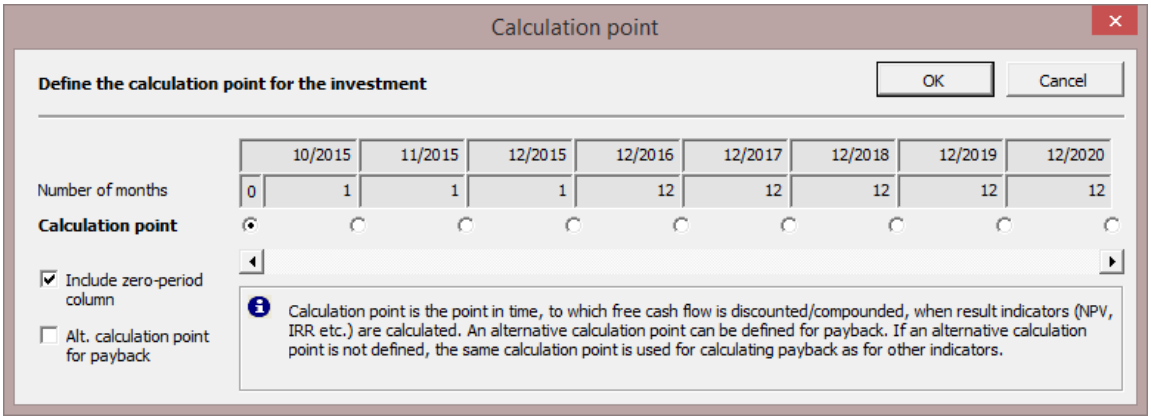


In the example above, the calculation term is 5 years and 3 months, defined as 3 months in a start-up phase on a monthly basis, and a 5-year operational phase on yearly basis.

When the construction phase of the investment lasts several months or even years, it makes sense to divide the calculation into two phases, i.e. 'construction phase' and 'operations'. These two phases follow each other without any gap in the tables, only their intervals might be different. In calculating, this means that the program discounts the data from the end of each consecutive interval (on a monthly basis from the end of each month, and on an annual basis from the end of each year).

3.1.1.1 Calculation point



Normally, the net cash flow of the investment calculation is discounted to the beginning of the calculation term. This is default for a new calculation in Invest for Excel, if no customized calculation template is used.

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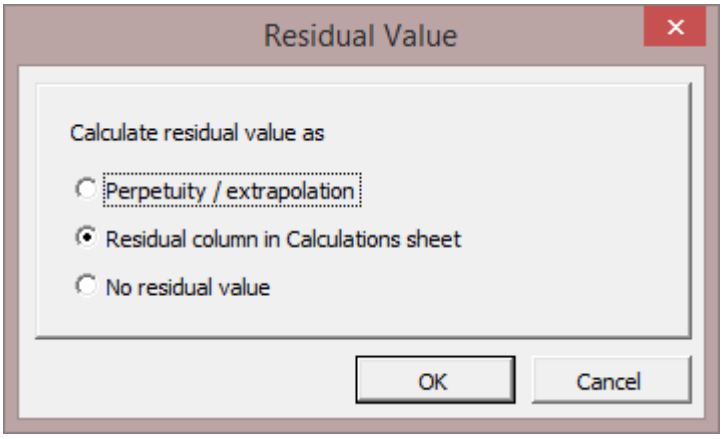
If appropriate, the calculation point can be changed to another point in time, in which case cash flow before the calculation point will be compounded and cash flow after the calculation point will be discounted to the calculation point.

An alternative calculation point can be defined for payback calculation.

Here, you can also choose not to include a zero-period column.

3.1.1.2 Residual value

In the Enterprise edition you can select how the residual value of the investment calculation is calculated.



Perpetuity can be used for "going concern" type of calculation, where the operation is expected to continue for a foreseeable future. In this case, you use a calculation term of, for example, 5 or 10 years and select the last typical financial year as basis for perpetuity.

Extrapolation is useful in long-term projections, e.g. 40 years of operation can be done so that you model 10 years and then extrapolate 30 years with some trend.

The options for perpetuity / extrapolation – are specified in the Profitability Analysis table (details in section 4.1.2).

The **Residual column** (which is the only residual value option in all other editions than Enterprise) can be used to freely specify residual cash flow effects of any item in the calculation.

In the Enterprise edition, you can also specify that **no residual value** is to be used for the calculation.

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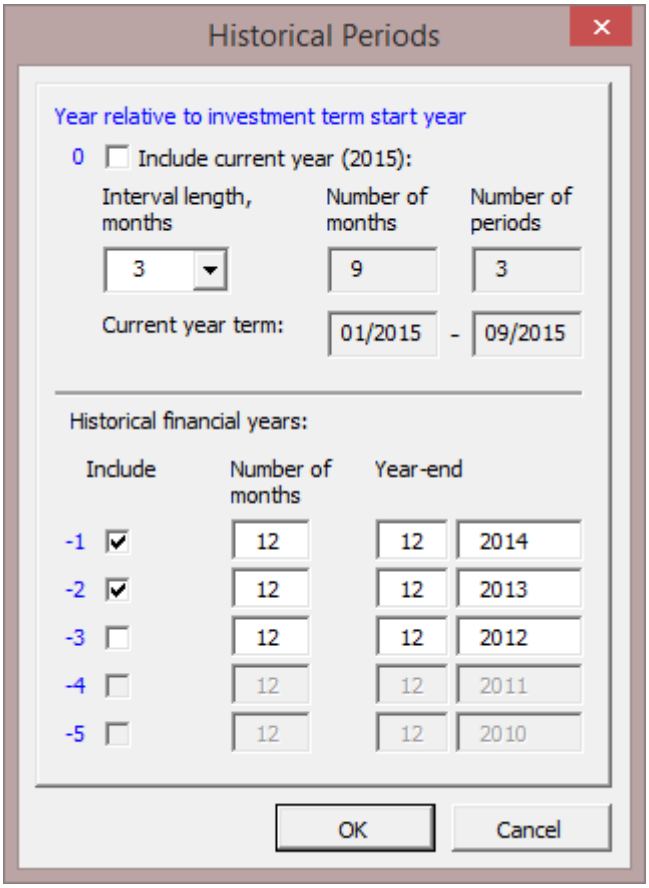
3.1.1.3 Historical periods

You can also include historical financial statements. Tick the years you wish to include and you will get the necessary columns in the following calculation tables.

If the forecast period starts in the middle of the current year, you can include the months that have already passed into the calculations on e.g. a monthly or quarterly level.



Note that, although historical periods are not included in calculating the result of the calculation, they can affect cash flow. Changes in working capital can be affected by opening balance in Balance Sheet. Also, depreciations of opening balance book values will affect income tax calculation.

The history columns can be hidden if necessary when printing or presenting calculations. Click on in the blue bar at the top of the calculation tables. When you wish to unhide the columns, re-click the same button.

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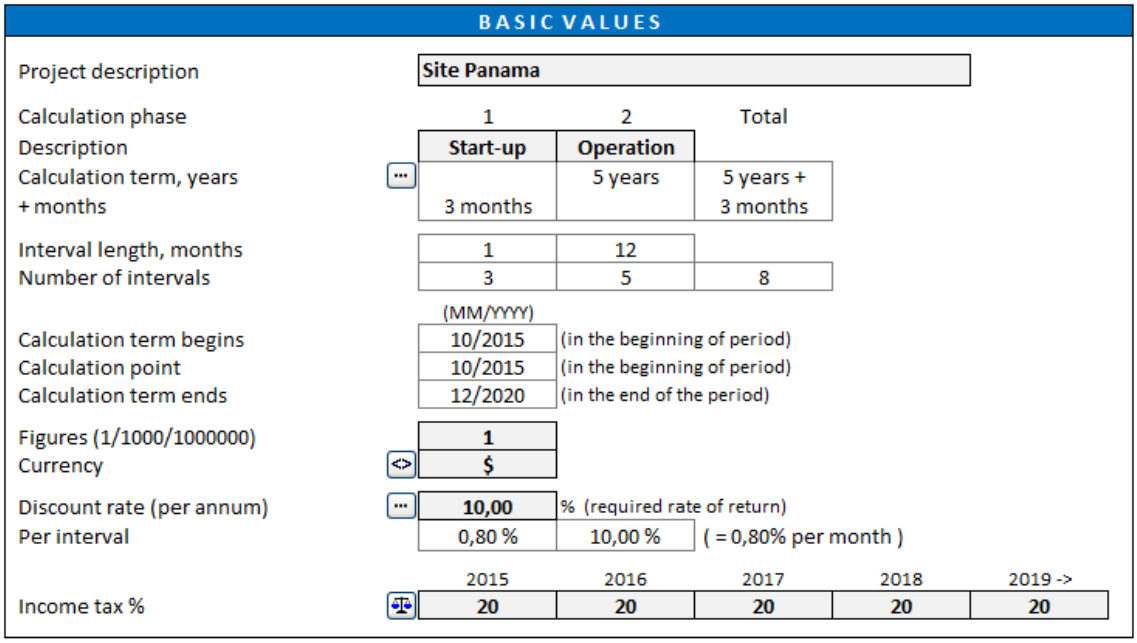
3.1.2 Basic Values



Enter the following data:

Project description: An informative text, shown as an identifier in Invest for Excel's input screens, reports and printouts.

Calculation phase Description: Informative text: Description texts are showing if you have selected two phases and chosen to use phase descriptions.

Figures (1/1000/...): Unit (1, 1000, 1000000). Specifies the accuracy of amounts. In the case of a large investment, it is practical to enter sums in thousands or even larger units. When using thousands as accuracy level, enter 1000 in this cell. The unit used is shown as an informative text in the calculations.

Currency: Informative text: The currency unit used in the calculation.
Type in currency unit, e.g. USD.

3.1.2.1 Currency conversion

Currency conversion is valid only for Pro and Enterprise edition. Note! This function is used only to convert a readymade calculation from one currency to another.

Use the <> button to open the Currency conversion dialog box.

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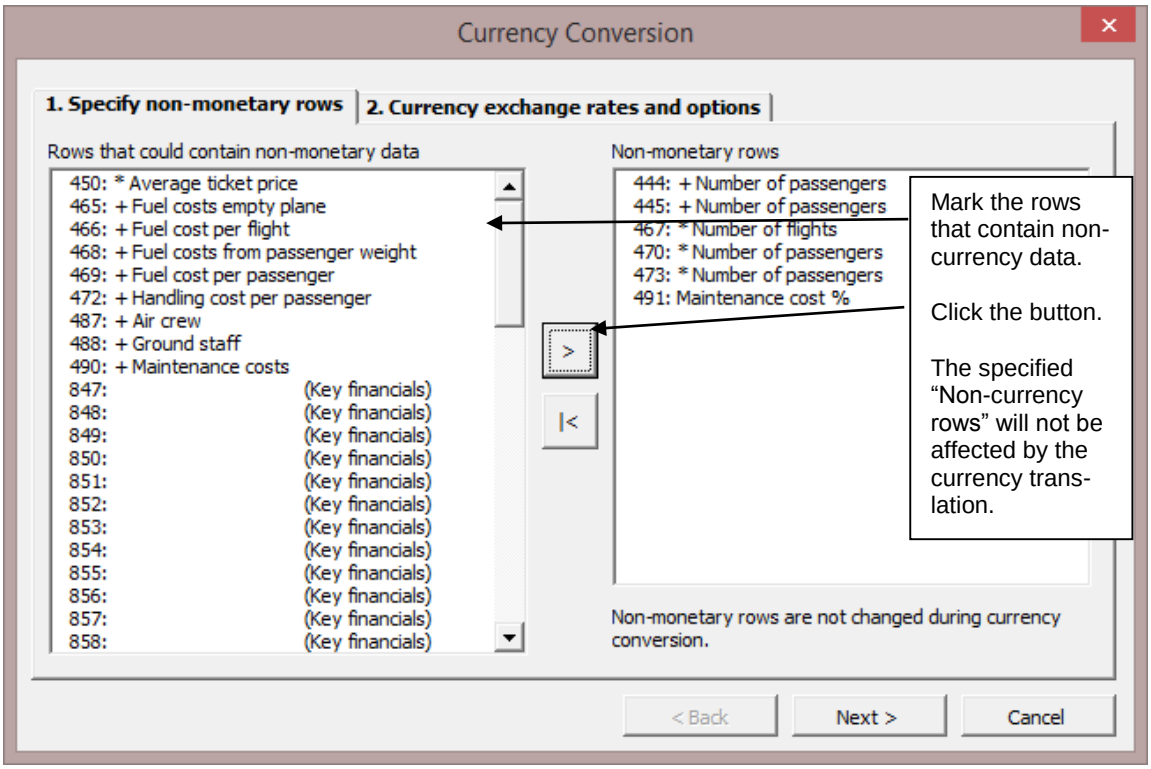
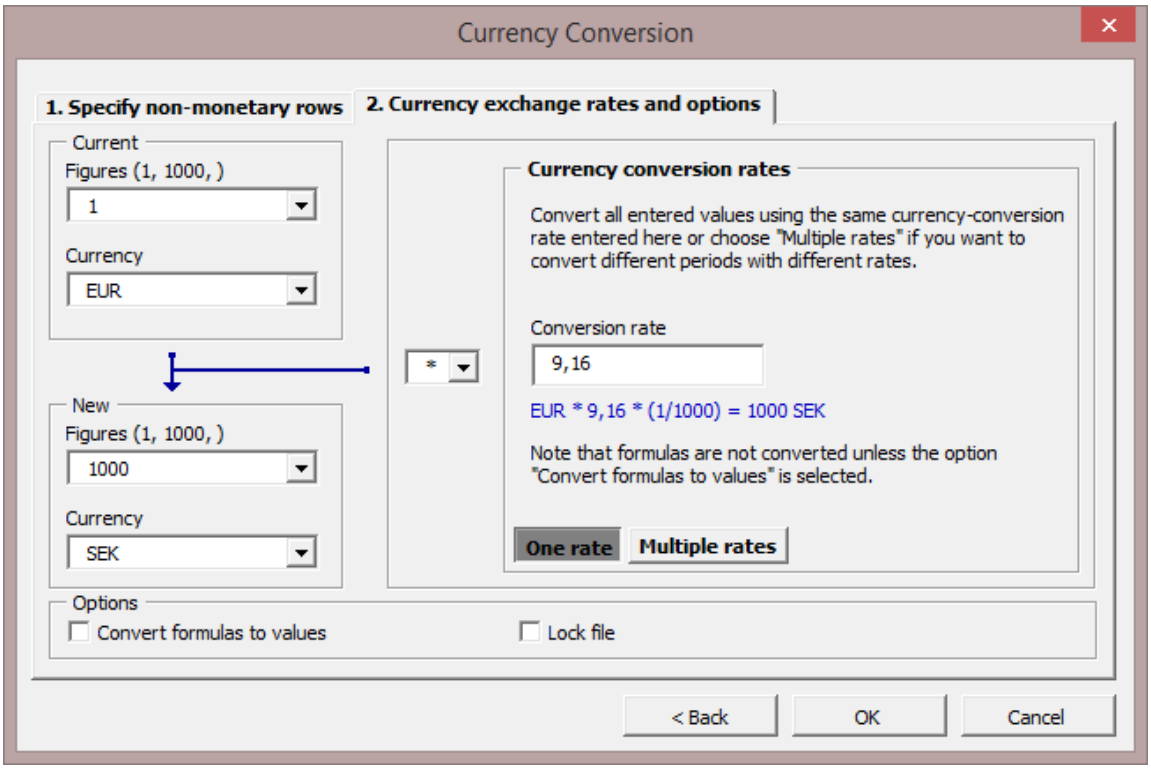
In the first page of the dialog box you can specify any non-monetary rows (that should not be included when the currency conversion is done):


Currency Conversion
1. Specify non-monetary rows
2. Currency exchange rates and options
Rows that could contain non-monetary data
450: * Average ticket price
465: + Fuel costs empty plane
466: + Fuel cost per flight
468: + Fuel costs from passenger weight
469: + Fuel cost per passenger
472: + Handling cost per passenger
487: + Air crew
488: + Ground staff
490: + Maintenance costs
847: (Key financials)
848: (Key financials)
849: (Key financials)
850: (Key financials)
851: (Key financials)
852: (Key financials)
853: (Key financials)
854: (Key financials)
855: (Key financials)
856: (Key financials)
857: (Key financials)
858: (Key financials)
>
|<
Non-monetary rows
444: + Number of passengers
445: + Number of passengers
467: * Number of flights
470: * Number of passengers
473: * Number of passengers
491: Maintenance cost %
Mark the rows that contain non-currency data.
Click the button.
The specified "Non-currency rows" will not be affected by the currency trans-lation.
Non-monetary rows are not changed during currency conversion.
< Back
Next >
Cancel

In the second page you specify the conversion rate to use and if you want to convert formulas to values and lock the file.



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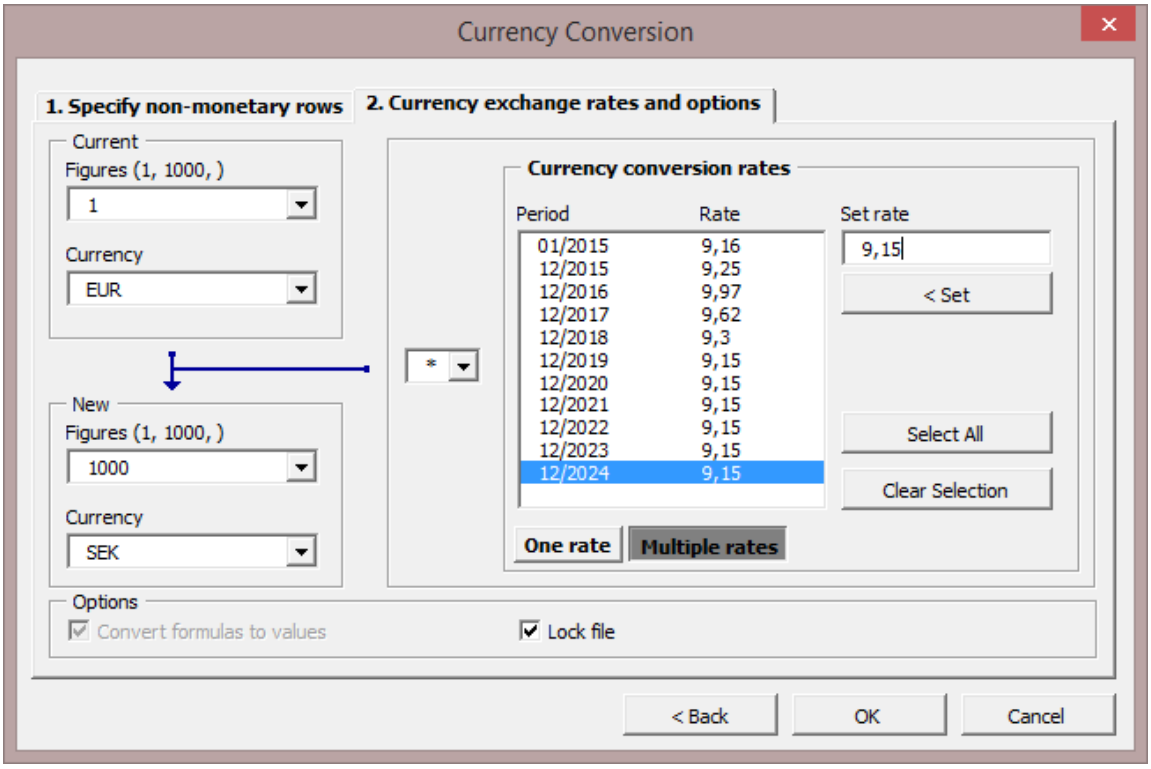
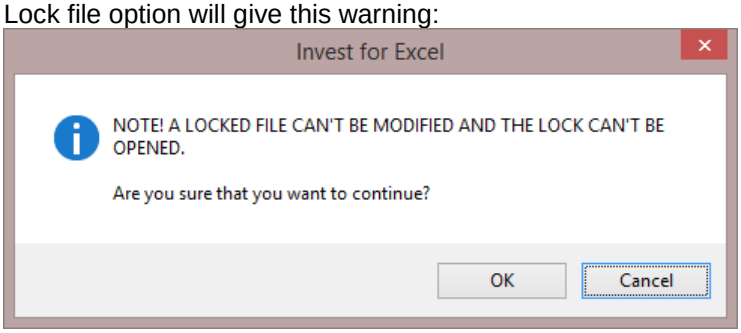
Note that in a currency conversion, only value cells are converted and fomulas remain unchanged. As a result, a formula like "=13000+5500+27000" will remain unchanged. This could lead to erroneous results, unless the option 'Convert formulas to values' is used.
Multiple conversion rates can be specified, if needed:

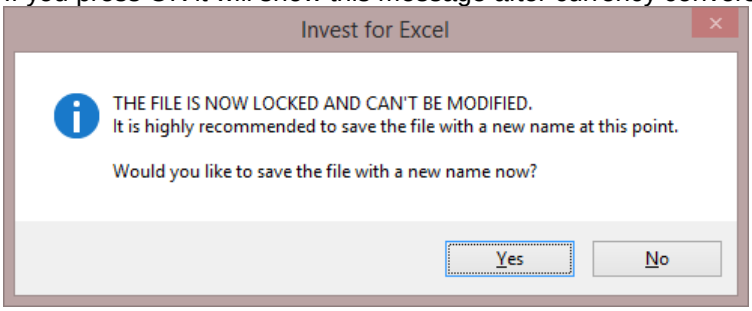


Note that when multiple rates are used, formulas are always converted to values.

Lock file option will give this warning:


Invest for Excel
NOTE! A LOCKED FILE CAN'T BE MODIFIED AND THE LOCK CAN'T BE OPENED.
Are you sure that you want to continue?
OK
Cancel

If you press OK it will show this message after currency conversion:


Invest for Excel
THE FILE IS NOW LOCKED AND CAN'T BE MODIFIED.
It is highly recommended to save the file with a new name at this point.
Would you like to save the file with a new name now?
Yes
No

We recommend to press Yes. When saving Invest for Excel automatically adds to the offered file name the ending "_LOCKED". Now the saved file can't be changed.

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3.1.2.2 Discount rate (per annum)

The Discount rate (annual *Discount Factor*) refers here to the **required rate of return** on the investment capital. This corresponds to the annual yield required of investments of similar type. It can also be seen as the cost of capital.

Invest for Excel® applies the discount rate to calculating net present values and to defining the payback term. In other words, the cash flows are discounted to the calculation point with the discount rate. The calculation point is by default the start of calculation. The discount rate works as the time factor of money. For example, 1 million USD received after one year is worth 909,090 million USD in today's money (present value), if the required rate of return is 10%.

When specifying the discount rate, you are looking for an answer to the question 'what returns would some other investment in the same risk category yield'? The higher the risk is, the higher the yield expectation. The level of the imputed interest rate depends also on the company's line of business, the returns expected by the owners, the liquidity of the company, etc. The criteria for the required returns on investment are therefore usually specified individually for each company and each case. Companies often have a specific overall rate of return requirement on their capital investments. The minimum rate of return is equal to financing costs. The financing costs consist of costs for both debt and equity (see WACC definition in next chapter).

In practice, the required rate of return is often determined step-by-step depending on the kind of investments undertaken. The step-by-step approach to required returns on different types of investments makes it possible to delegate investment decisions on the one hand, and to manage investment activity according to the chosen investment policy on the other hand.

CLASSIFICATION OF INVESTMENTS:

Investments can be classified and the required returns can be staggered, for example:

Class	Investment motive	Required rate of return
1.	Imperative reasons	None
2.	To safeguard market shares	For example: 6%
3.	To substitute present investments	For example: 12%
4.	To cut costs	For example: 15%
5.	To get higher returns	For example: 20%
6.	To enter new markets	For example: 25%

Source: Honko 1979.

The program converts the annual discount rate per interval and month. Please, note that there is a difference between the required rate of return before and after taxes. Please note also that if the input values are not inflated, the discount rate should not include inflation.

3.1.2.2.1 WACC

When specifying the discount rate, you may draw on your knowledge about the company's required rate of return on its equity, and its equity to liabilities ratio.

Click the button beside the discount rate and then "WACC…" and enter the necessary data. The WACC dialog box has separate tabs for formulas (Formula) and definitions (Usage). If you select "Use calculated WACC as discount factor", WACC will be used as discount rate.

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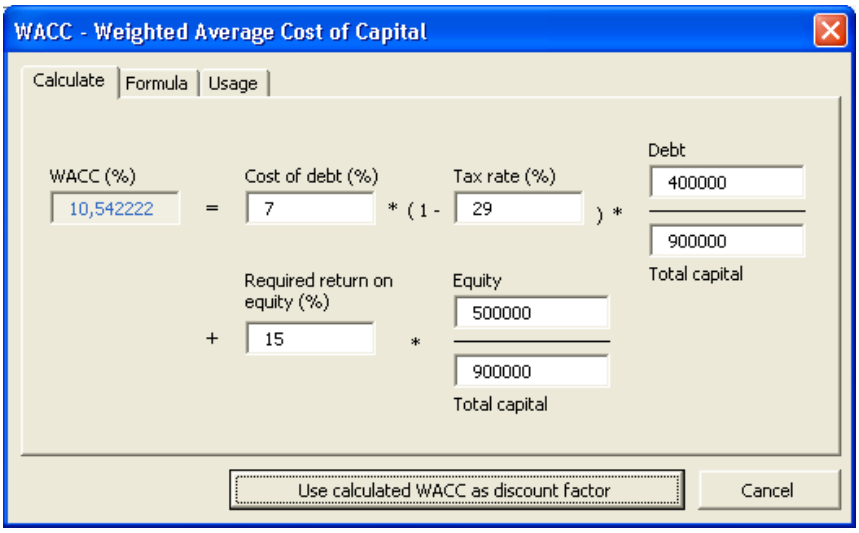
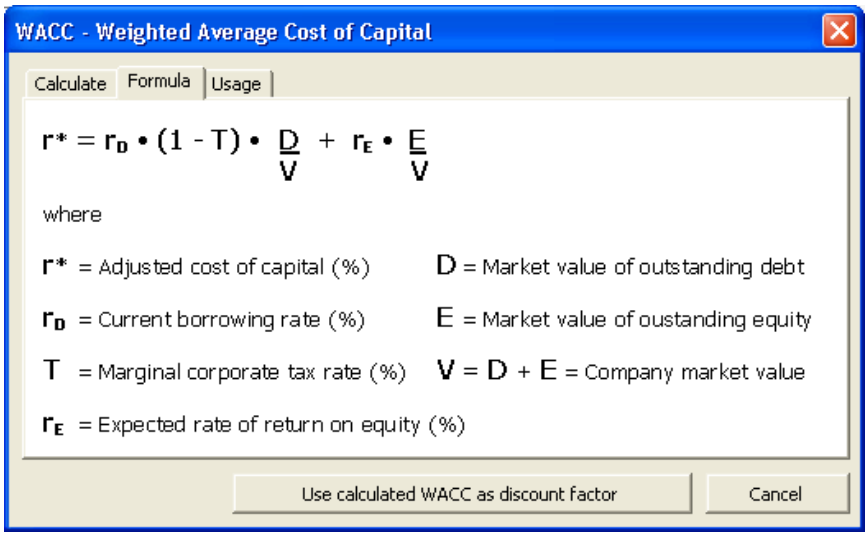


In the above example, we have used 7% as the average borrowing rate for debt, 15% for the required rate of return on equity; the company's income tax rate is 29%. Equity is about 500,000, while its liabilities amount to 400,000 €. When you click on the **Use calculated WACC as discount factor** button, the program copies the calculated WACC rate to the input field for imputed interest rate. The WACC formula:


WACC - Weighted Average Cost of Capital
Calculate
Formula
Usage
r* = r_D • (1 - T) • D/V + r_E • E/V
where
r* = Adjusted cost of capital (%)
r_D = Current borrowing rate (%)
T = Marginal corporate tax rate (%)
r_E = Expected rate of return on equity (%)
D = Market value of outstanding debt
E = Market value of oustanding equity
V = D + E = Company market value
Use calculated WACC as discount factor
Cancel

Enter percentages as numbers, for example, enter 7% as the figure 7. The program converts the figures automatically to percentages.

3.1.2.2.2 Variable discount rates

The Free cash flow of each period (column) can be discounted/compounded to the calculation point using variable discount rates.

Specify that you want to use variable discount rates by clicking the ... button beside the Discount rate in Basic values:

Select "Variable discount rate" in the "Discount Rate" dialog box:

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When you press OK you are taken to the Cash flow statement on the Calculations sheet, where you can specify a discount rate for each cash flow:

Free cash flow (FCF)	**-50 000**	**3 797**	**4 638**	**4 667**
Discounted free cash flow (DFCF)	-50 000	3 516	3 958	3 693
Cumulative discounted free cash flow	-50 000	-46 484	-42 526	-38 833
Discount rate (per annum)	**8,00%**	**8,00%**	**8,25%**	**8,12%**

Note that each columns 'Free cash flow (FCF)' is discounted/compounded to the calculation point using the discount rate specified for the column. Enter annual discount rates even if the columns period is shorter than 12 months.

3.1.2.2.3 Cost of equity

Only in *Enterprise* edition: Cost of equity is added to the Basic values table, when FCFE calculation is selected to be included in the file. FCFE can be included from the Options dialog box (Invest menus).

Discount rate (per annum)	...	**10,00**	% (required rate of return)
Cost of equity (per annum)		**14,00**	%

Enter the required after-tax rate of return on equity. Note that Invest for Excel doesn't make a distinction between Preferred stock and common stock. Cost of equity should be return on all equity.

3.1.2.3 Income tax rate

Enter the company's income tax rate for each of the first five years. The rate applicable in the fifth year is presumed to remain unchanged for the rest of the investment calculation term. This feature enables you to take into account changing tax rates in your calculation.

If the organisation is exempted from taxation, or if tax effects are for some other reason not taken into consideration, enter 0 (zero) for each year. Taxes are often ignored completely in investment calculations. In that case, the discount rate should also be defined before taxes.

When the tax rate has been specified, the effect of taxation on income in the investment calculation equals the tax rate. Depreciation affects the result by reducing the amount of tax paid (outward cash flow).

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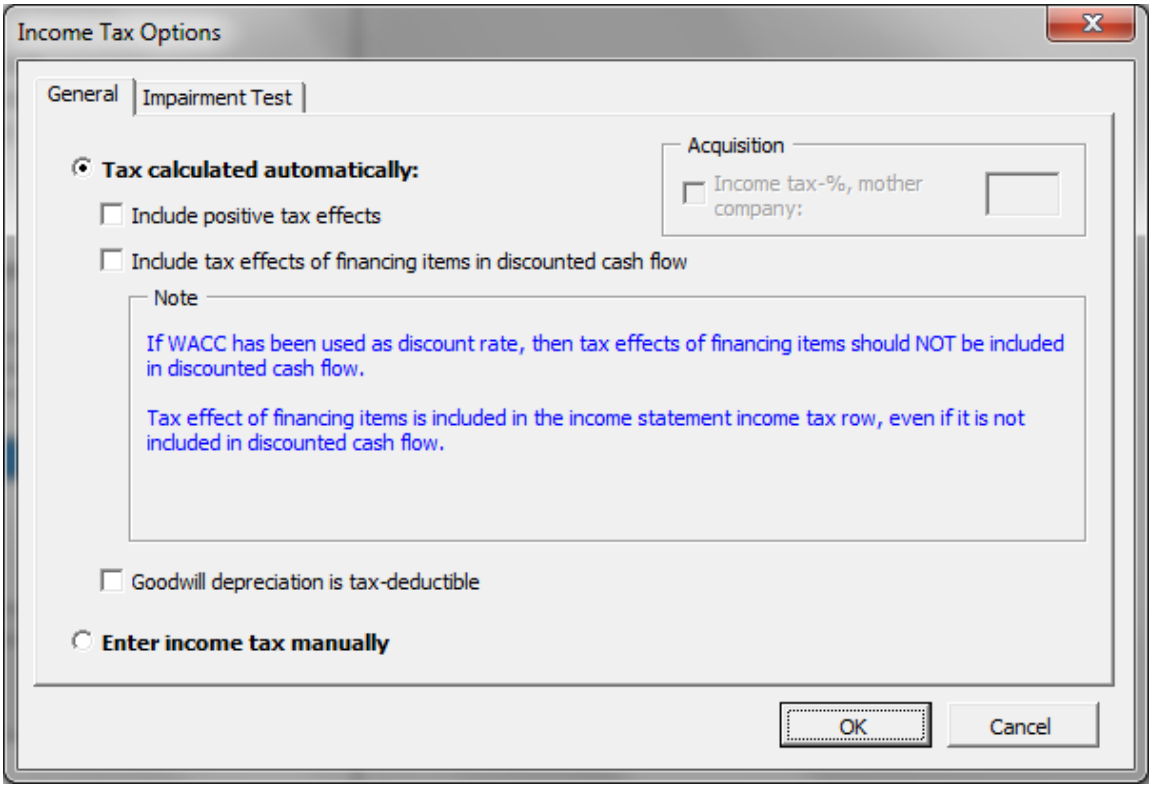
3.1.2.4 Income tax options

Press this button to open the income tax options dialog box.


Income Tax Options
General
Impairment Test
Tax calculated automatically:
Include positive tax effects
Include tax effects of financing items in discounted cash flow
Acquisition
Income tax-%, mother company:
Note
If WACC has been used as discount rate, then tax effects of financing items should NOT be included in discounted cash flow.
Tax effect of financing items is included in the income statement income tax row, even if it is not included in discounted cash flow.
Goodwill depreciation is tax-deductible
Enter income tax manually
OK
Cancel

Income tax can be calculated automatically or entered manually.

3.1.2.4.1 Tax calculated automatically

3.1.2.4.1.1 Include positive tax effects

The result of the investment is calculated on discounted cash flows after tax. The effect of tax is usually a decrease in profit and cash. By default, only this negative tax effect is taken into account when evaluating an investment.

Checking this box however means that tax benefits are also taken into account, when the investment (usually in the beginning) produces negative cash flows. If the company is generally profitable and if its future financial statements are presumed to be critical, the investment will have positive tax effects (a reduction in taxable income on a company level), which can be taken into account in the calculation by choosing this option.

3.1.2.4.1.2 Include tax effects of financing items in discounted cash flow

By default (this option is off), if any financing items have been included in Income statement, the income tax effect of the financing items is included in the Income statement, but not in the discounted cash flow.

When this option is activated, the income tax effects of financing items are also included in discounted free cash flow and therefore affect NPV. This is an alternative to taking financial

structure into account in the discount factor. This option should NOT be activated when WACC is used as discount factor.

3.1.2.4.1.3 Goodwill depreciation is tax-deductible

When this option is activated, goodwill deprecation is tax deductible.

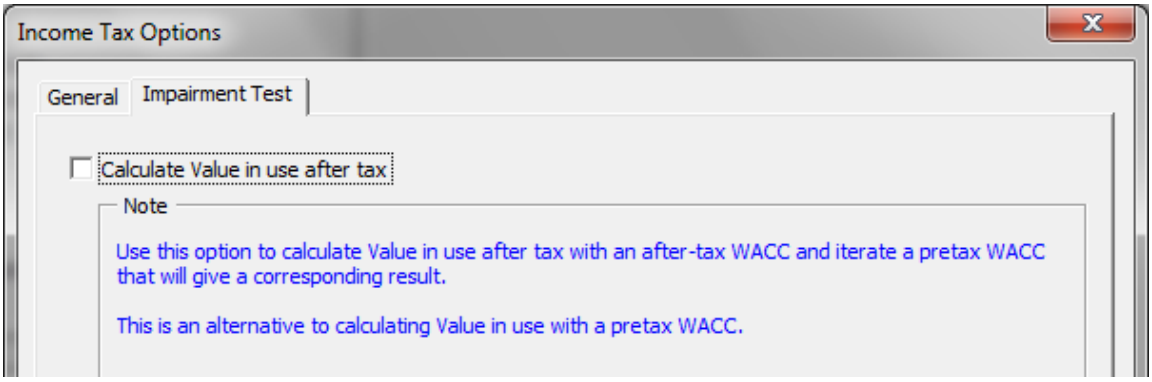
3.1.2.4.2 Enter income tax manually

When this option is activated, income tax is entered manually. The income tax row cells are unlocked and formulas are cleared.

The Income tax row in the cash flow statement by default holds a reference to the income tax row in the Income statement.

3.1.2.4.3 Impairment test and income tax

IFRS recommends that an impairment test should be done before tax with a pretax discount factor. This is default in Invest for Excel (option Calculate Value in use after tax is off):


Income Tax Options
General
Impairment Test
Calculate Value in use after tax
Note
Use this option to calculate Value in use after tax with an after-tax WACC and iterate a pretax WACC that will give a corresponding result.
This is an alternative to calculating Value in use with a pretax WACC.

Sometimes it is easier or more accurate to do an impairment test after tax with an after-tax WACC and then iterate a pre-tax WACC that will give a corresponding result. This can be done by activating this option.

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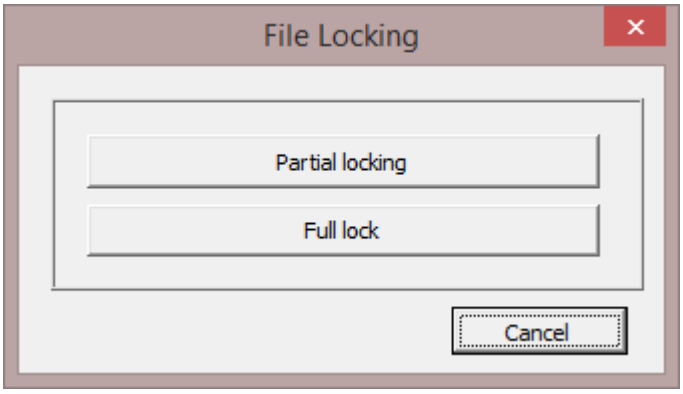
3.1.2.5 File locking

(This function is only available in *Pro* and *Enterprise* editions.)

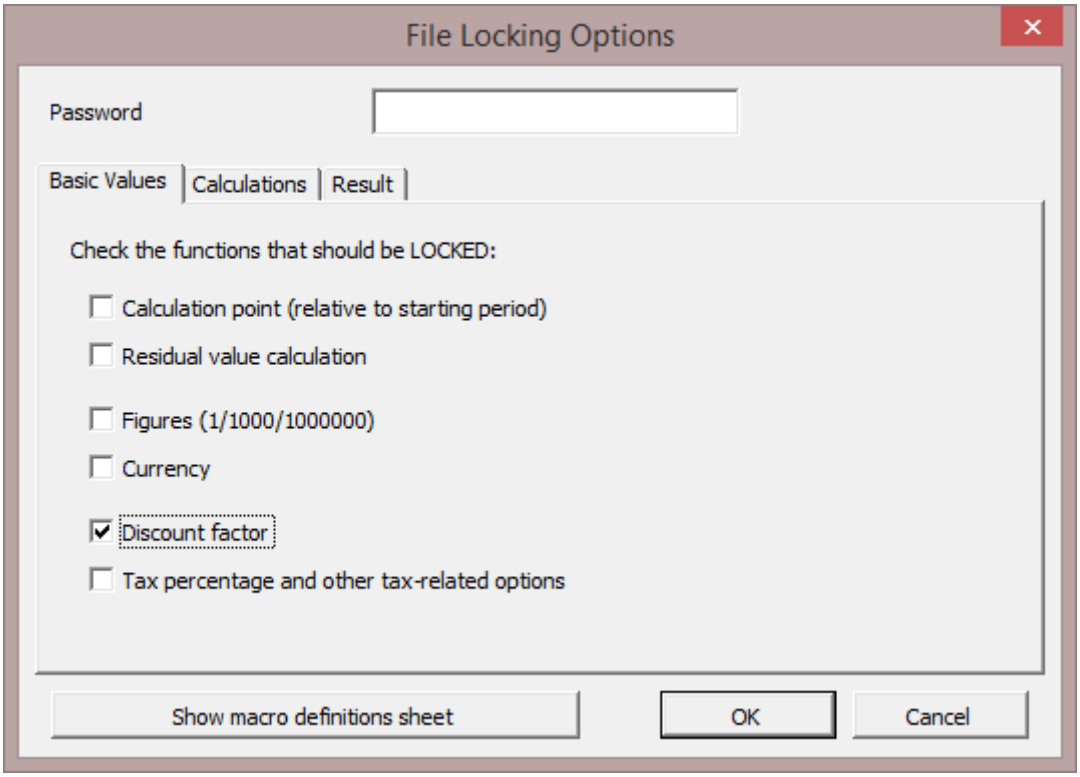
You can protect the calculation file from being altered by pressing the “lock” button. You can choose if you want to lock the whole file or some parts of it.



3.1.2.5.1 Partial locking

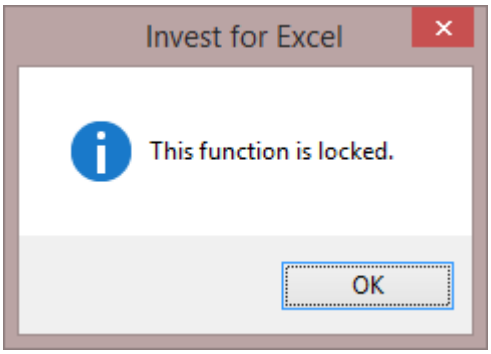
When you choose ‘Partial locking’ you can choose the parameters that should be locked. This is useful when you use a template with pre-entered data and/ or settings that should not be altered.

A password can be applied for the Partial locking options. NOTE! The password is case sensitive.

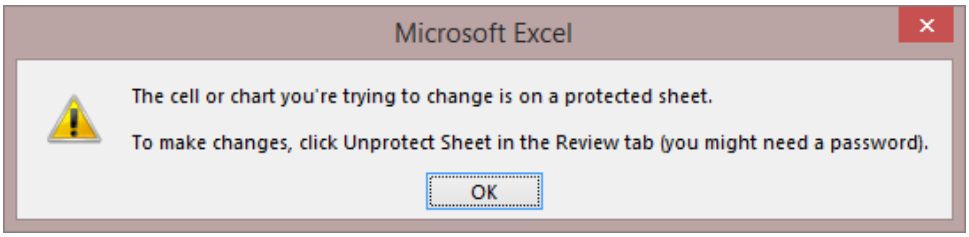


If you enter a password the program asks you to confirm it.

If you try to use a protected function, the following message is shown:



Or if you try to enter a value in a locked cell:

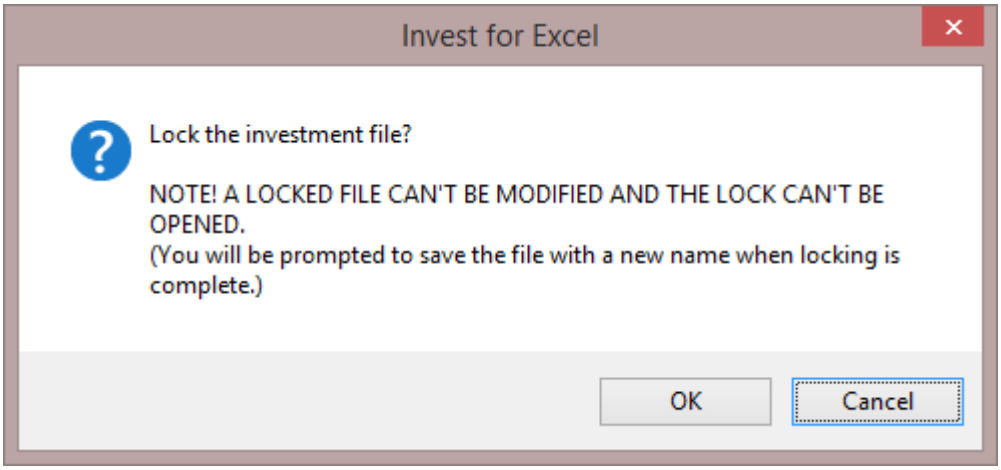

Microsoft Excel
The cell or chart you're trying to change is on a protected sheet.
To make changes, click Unprotect Sheet in the Review tab (you might need a password).
OK

3.1.2.5.2 Full lock

“Full lock” means you can’t edit any data in the file, but you can still navigate and print on the calculation after locking the file. Use this option when you want to ensure that no changes are made to the file.

NOTE! Full lock can't be opened once it has been applied.

The program asks you to confirm that you want to lock the file and prompts you to save the file with a new name:


Invest for Excel
Lock the investment file?
NOTE! A LOCKED FILE CAN'T BE MODIFIED AND THE LOCK CAN'T BE OPENED.
(You will be prompted to save the file with a new name when locking is complete.)
OK
Cancel

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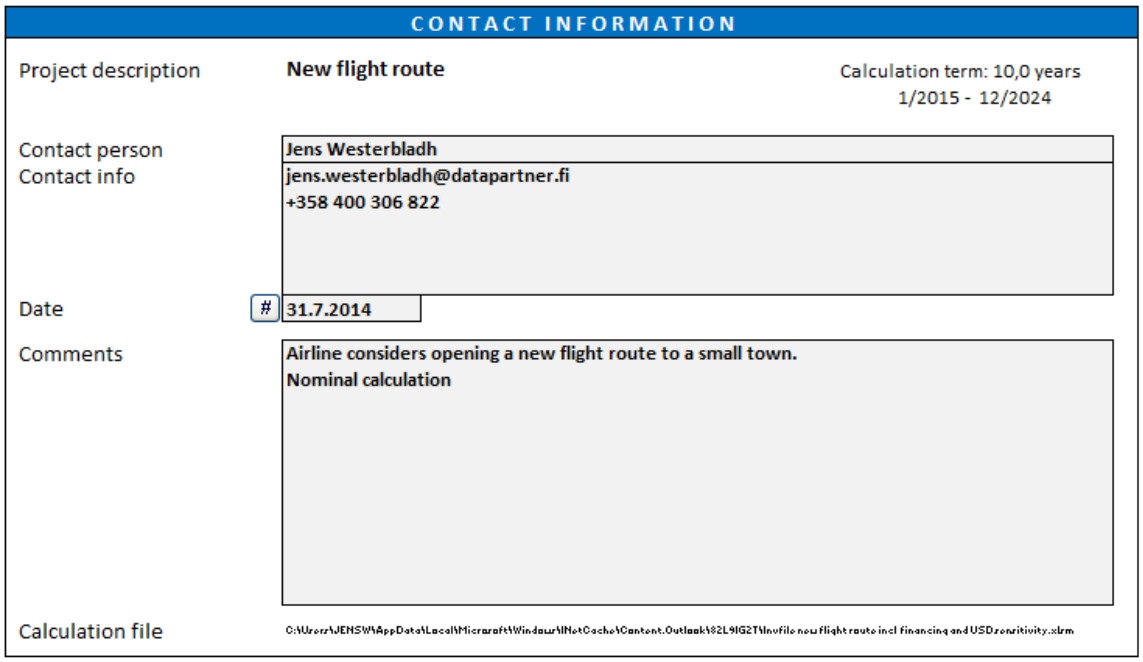
3.1.3 Contact Information



Use this input screen to enter contact information and other comments useful for yourself or your colleagues.

Project description: Link to the **Basic Values** screen.

Contact person: Name of the person who made the calculation.
Contact info: How to contact her / him.

Date: The date when the calculation was made or last updated.

<- Click this button to update the date.

Comments: Text field for comments. Enter here the basic assumptions in the calculation, any explanatory notes or comments, and cross-references or links to other calculations, reports etc.

Calculation file: Name of the calculation file and the path to its folder. Useful information, if you should forget in which folder the file was saved. The path will be updated the next time you save it.

For explanations on buttons, see chapter 1.9

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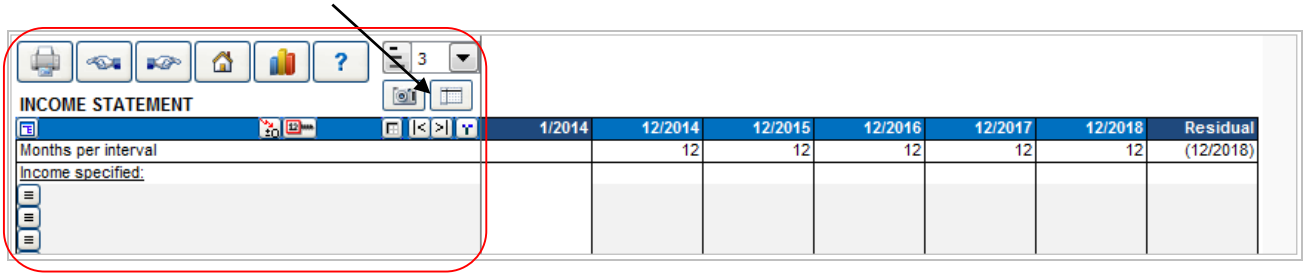
3.2 Calculations sheet

The result indicating the feasibility of the investment is calculated on the basis of the data input into the following spreadsheet tables. Together with the calculated return, this data forms the core of the calculation. The tables show information both entered by user and calculated by the program.

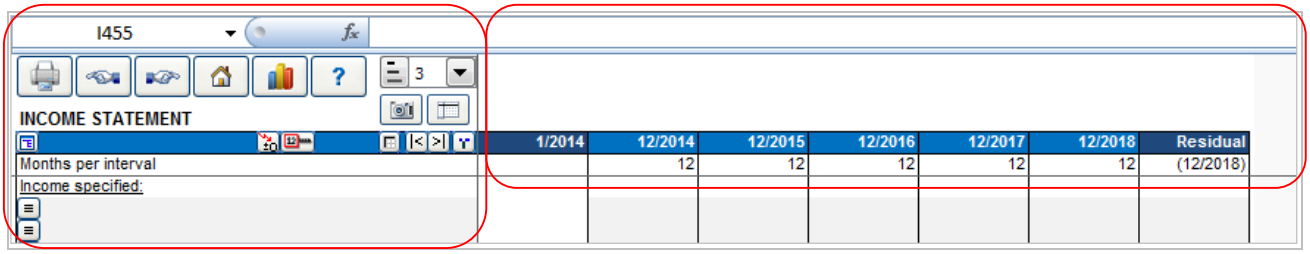
3.2.1 Unfreeze/freeze column headers (Calculation sheet)

You can unfreeze and freeze column headers by pressing the following button on the Calculations sheet:



When you **unfreeze** column headers, only the row texts columns to the left are locked when you scroll right. When you scroll up or down, no rows are locked. This is useful when you create formulas that reference rows above the current table.

When you **freeze** column headers, both the row text columns to the left and the Header rows are locked when scrolling.



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3.2.2 Buttons in Calculations sheet

Hiding/ un-hiding rows and grouping rows into categories. See 3.2.3.

Flip buttons for sub-rows. You can toggle (hide/unhide) sub-rows for the row with the Flip button by clicking it.

Running the Cell Break-Even function.

You can analyse for **any input variable** what value returns NPV=0. Move the cursor to the cell to be changed, before running the Break-Even function. For more information, refer to the **Analysis** chapter.

Copy/ distribute value or formula to the next columns. See 3.2.10.

This button shows/ hides row and column indexing (R1C1/ A1), like in Excel.

This button takes you to the last column of the table. It is very handy, when there are a lot of columns and you want to have a quick look at the status of the last column. You may also need this function when entering the residual value of the investment object as a positive (+) figure in the last column (**Residual**).

Go to the first column of the spreadsheet with this button.

If the calculation includes historical data columns you can hide or unhide them by clicking this button on the right.

Other buttons

Button	Description
	Print current table.
	Move to previous table
	Move to next table.
	Move to the Invest for Excel home page.
	Go to chart / create a chart. To select an existing chart, or create a new one, based on the figures in the table.
	Show help for current table.
	Pressing the camera button will place a picture copy of the table or chart in the clipboard. The picture can then be pasted into another sheet, document or software.
	Unfreeze/freeze column headers (Calculation sheet)

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3.2.3 Row outlining

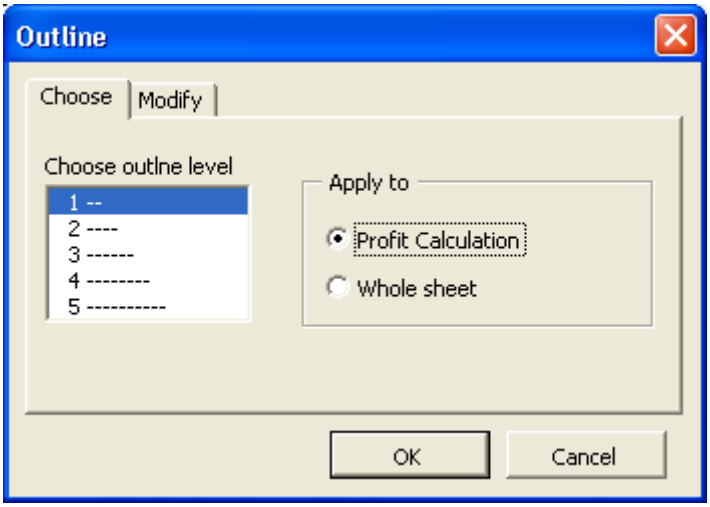
Row outlining in the Calculations sheet is available from Standard edition of Invest for Excel. Modifying outline levels is available from Pro edition.

Each table/statement in the Calculations sheet of a calculation file has two controls for outlining:

The dropdown list is for selecting outline level:

Five levels have been reserved for outlining:

The last item in the list ('…'), as well as the button, opens the 'Outline' dialog:



In the 'Choose' tab, you can select if the outline level selection applies to the current table/statement, or the whole sheet.

In the 'Modify' tab you can modify the outline level for each row in the current table/statement:

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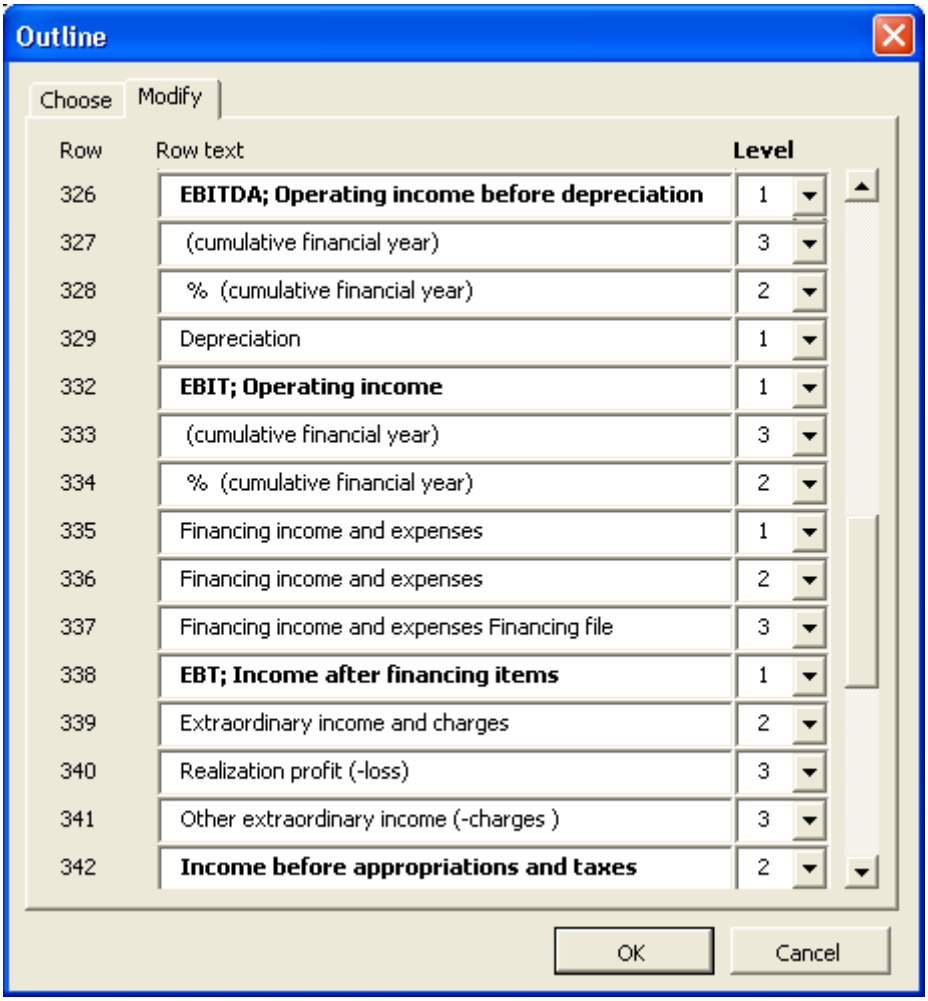
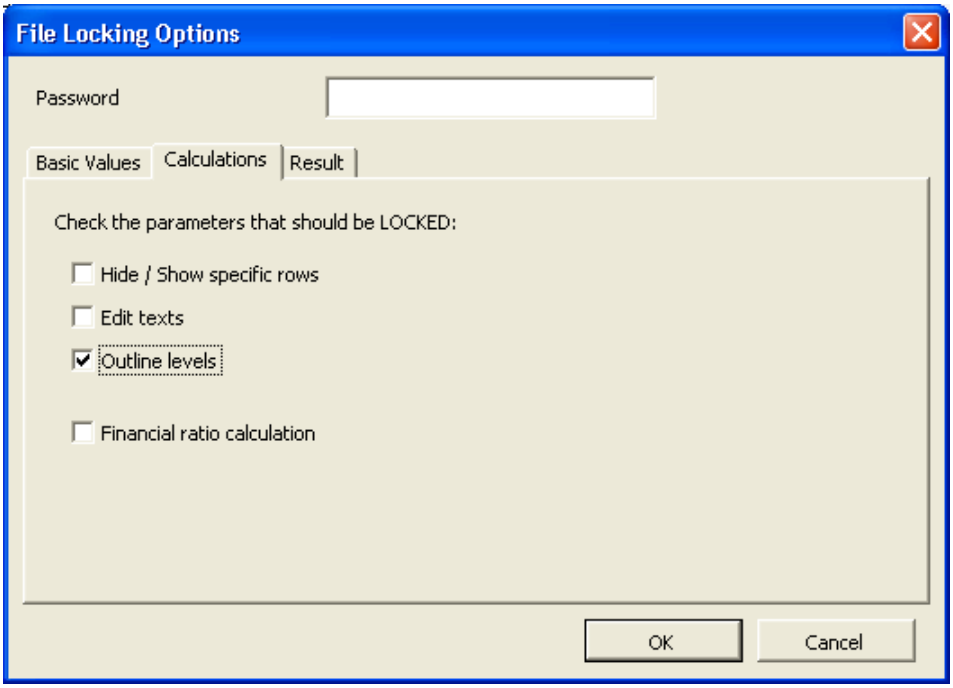

Outline
Choose
Modify
Row
Row text
Level
326 EBITDA; Operating income before depreciation 1
327 (cumulative financial year) 3
328 % (cumulative financial year) 2
329 Depreciation 1
332 EBIT; Operating income 1
333 (cumulative financial year) 3
334 % (cumulative financial year) 2
335 Financing income and expenses 1
336 Financing income and expenses 2
337 Financing income and expenses Financing file 3
338 EBT; Income after financing items 1
339 Extraordinary income and charges 2
340 Realization profit (-loss) 3
341 Other extraordinary income (-charges) 3
342 Income before appropriations and taxes 2
OK
Cancel

Modifying outline levels is available from Pro edition. A locking option for outline levels have been added in the 'File locking Options' dialog:



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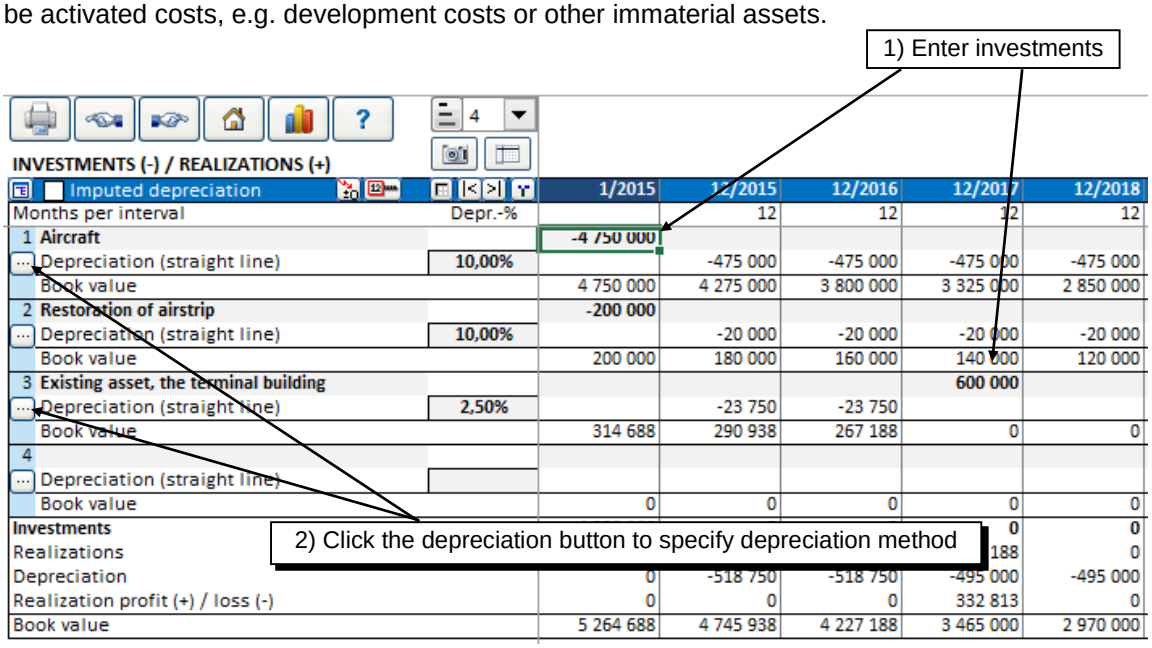
3.2.4 Investments / Realizations

The 'Investments/ Realizations' table is used for input of capital expenditures and defining depreciation plans. Also realizations and residuals are entered/ calculated here.

Enter each investment in its row in a time period when it will have an effect on the company's cash flow. You can also enter realizations (sales of assets) in this table.

Remember to enter the investments as **negative** values, and realization (selling price) as positive values.

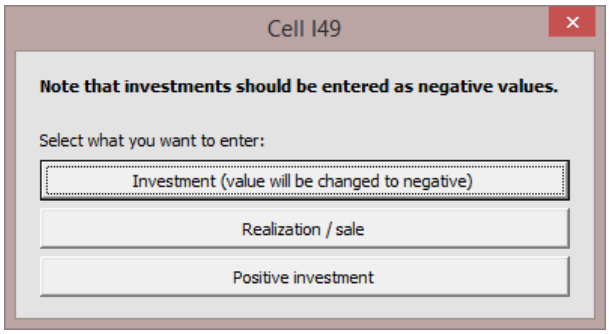
The most common investments (Capital Expenditures) are fixed assets, but they can just as well be activated costs, e.g. development costs or other immaterial assets.



INVESTMENTS (-) / REALIZATIONS (+)

Imputed depreciation		1/2015	12/2015	12/2016	12/2017	12/2018
Months per interval	Depr.-%		12	12	12	12
1 **Aircraft**		-4 750 000				
Depreciation (straight line)	10,00%		-475 000	-475 000	-475 000	-475 000
Book value		4 750 000	4 275 000	3 800 000	3 325 000	2 850 000
2 **Restoration of airstrip**		-200 000				
Depreciation (straight line)	10,00%		-20 000	-20 000	-20 000	-20 000
Book value		200 000	180 000	160 000	140 000	120 000
3 **Existing asset, the terminal building**					600 000	
Depreciation (straight line)	2,50%		-23 750	-23 750		
Book value		314 688	290 938	267 188	0	0
4						
Depreciation (straight line)						
Book value		0	0	0	0	0
Investments					**0**	**0**
Realizations					188	0
Depreciation		0	-518 750	-518 750	-495 000	-495 000
Realization profit (+) / loss (-)		0	0	0	332 813	0
Book value		5 264 688	4 745 938	4 227 188	3 465 000	2 970 000

Positive investments are also supported. When you enter a positive value, a popup dialog is displayed, asking you to confirm type of entry. The same will happen when a negative value is entered on row that has been confirmed as a positive investment.


Cell I49
Note that investments should be entered as negative values.
Select what you want to enter:
Investment (value will be changed to negative)
Realization / sale
Positive investment

In the investment table you can specify up to 30 different investment components (partial investments with individual depreciation methods and depreciation percentages). Bear in mind that the calculation should only include assets for one investment project. Separate investment projects should be evaluated in separate calculation files.

You can enter several investments in the same row, provided that their depreciation method is the same. This way, it is easy to calculate investment projects with more than one start-up period. Note that a realization applies to an investment row as a whole. Part of an investment cannot be realized if the investment is not split in more than one row.

A name or short description of the investment can be entered in the first column. The default description of the first row is the description of the investment project, but you are welcome to type over.

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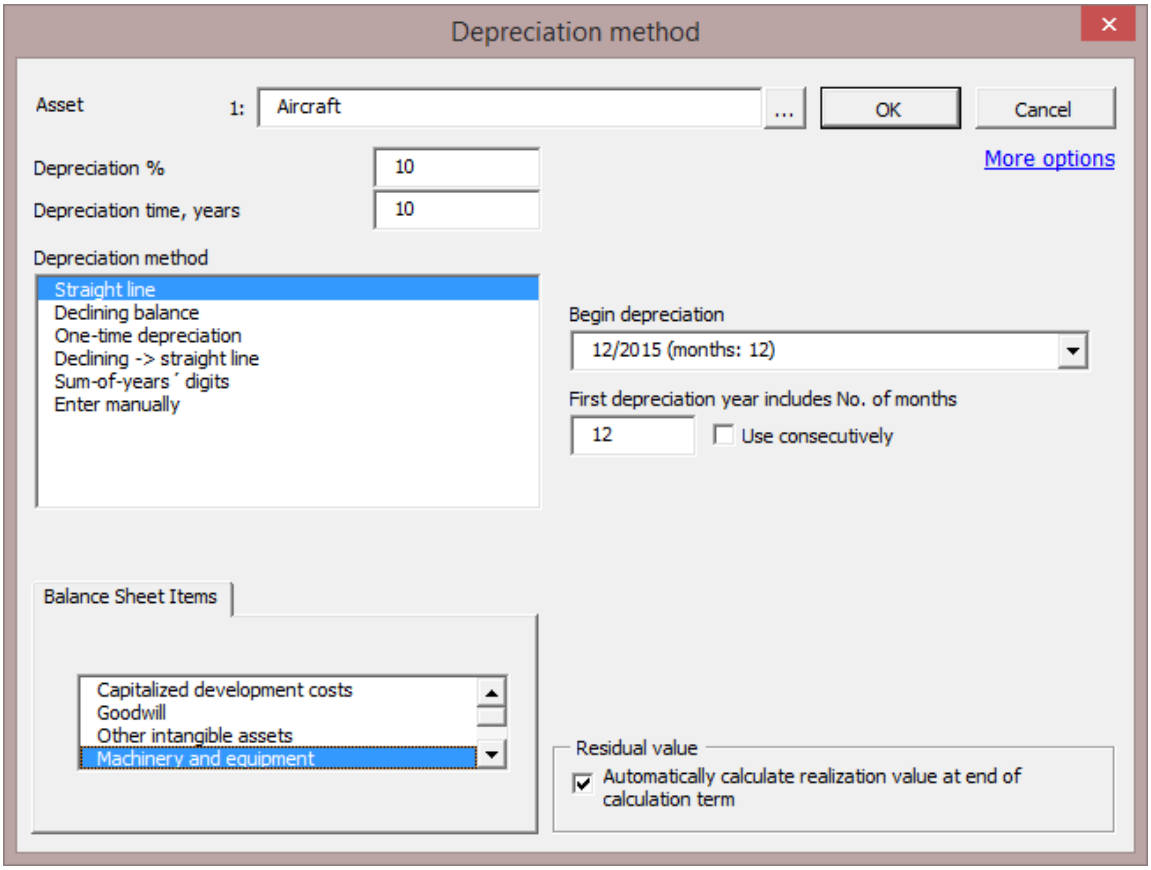
The “Residual” column at the end of the calculation term is reserved for entering residual value. In the "Depreciation method" dialog, you can choose if you want an ending book value to be automatically realized at the end of the calculation term, or not. Automatic realization is default. In the Enterprise edition of Invest for Excel, the residual column can be left out of the calculation. In this case, the automatic realization option is not available.

12/2013	12/2014	Residual
12	12	(12/2014)
		100 000
-200 000	-200 000	
250 000	50 000	0
		10 000
-40 000	-40 000	
50 000	10 000	0
0	**0**	**60 000**
-240 000	-240 000	
0	0	50 000
300 000	60 000	0

3.2.4.1 Depreciation method

Select the depreciation method (… button) and specify calculation options in the Depreciation Method dialog box:



The available depreciation methods are:

1. Straight-line depreciation
2. Declining balance depreciation
3. One-time depreciation
4. Changing from declining balance to straight-line depreciation (applicable in Germany).
5. Sum-of-years´ digits (applicable in Switzerland and Spain).

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6. Depreciation can be entered manually by selecting **Enter manually.**

You can also define the percentage of the investment that declining, straight line or sum-of-years´ digits depreciation is based on (the default value is 100%). That way you can calculate depreciation of a part of the investment only, for instance when the residual value has been set, and depreciation concerns the difference between purchase price and residual value.

Straight-line Enter either the depreciation percentage or expected economic lifetime of the object (depreciation time). Invest for Excel automatically calculates the other. The depreciation is calculated from the initial investment (purchase price).

Declining balance Enter the depreciation percent. The depreciation is calculated from the ending balance of each financial year. Ending balance is the same as book value at the end of previous year + new investments during ongoing financial year.

One-time depreciation

The asset is depreciated 100% in the specified "first depreciation" period.

Declining -> Straight line

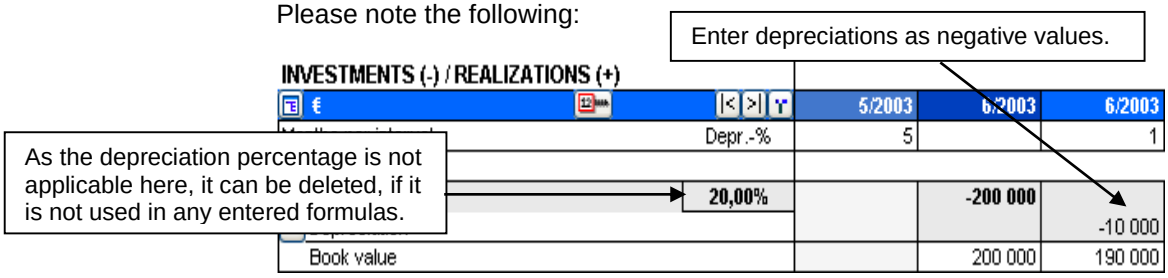
The higher of declining balance or straight-line depreciation, is used. This method, which ensures maximum depreciation, is used in Germany. Specify the depreciation percentage and the economic lifetime of the investment object.

Sum-of-years´ digits

This depreciation method uses the sum of years left to depreciate, when calculating the depreciation. The sum of the years' digits is a form of accelerated depreciation. Example, A 3-year depreciation plan: the digits in the years of the asset's useful life are summed: 1 + 2 + 3 = 6. 1st year depreciation is 3/6* book value. 2nd year 2/6 and 3rd year 1/6 * book value.

Enter manually Enter each depreciation manually in the investment table.

Please note the following:



Depreciations affect the result of the calculation through tax effects. If taxes are excluded, depreciations will have no effect on the Investment profitability ratios (NPV, IRR, Payback etc.).

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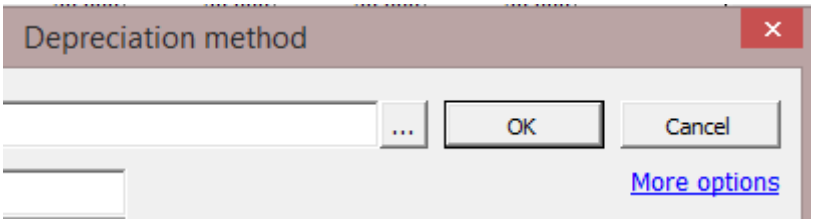
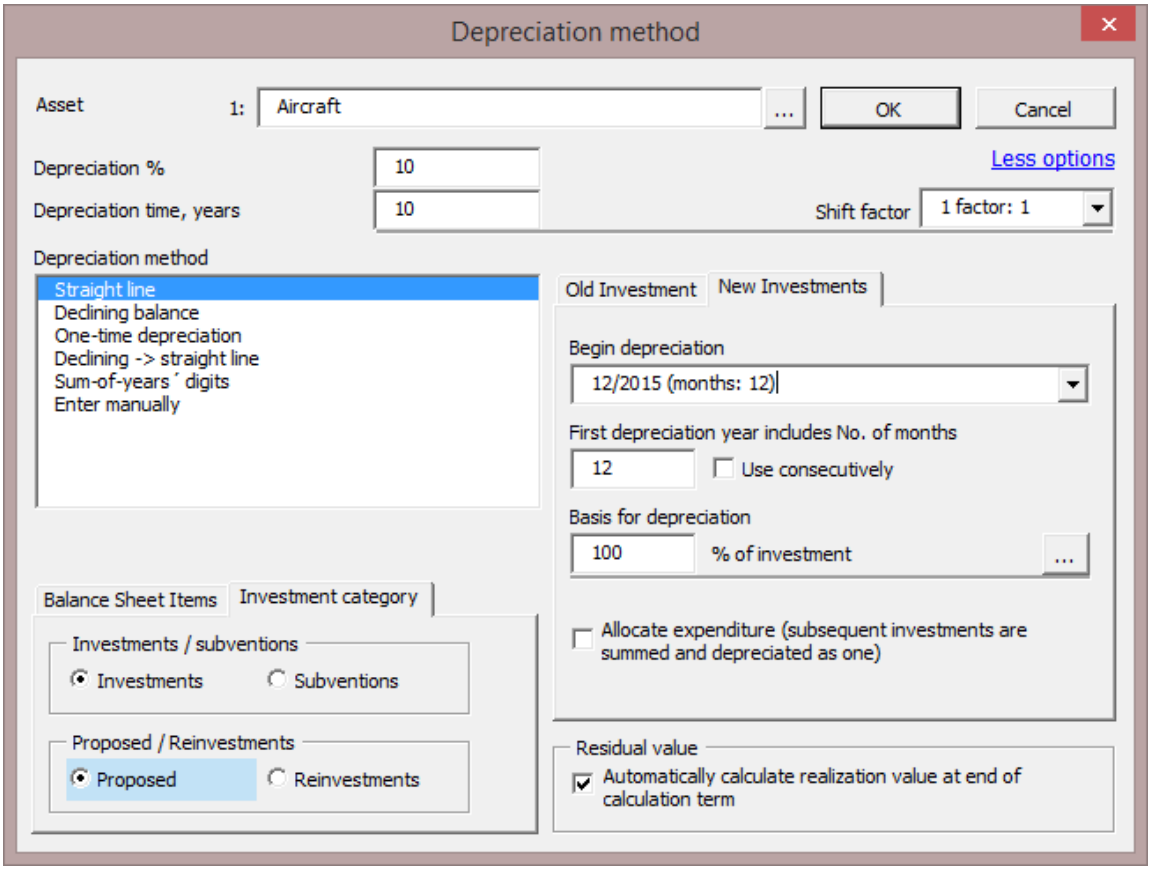
3.2.4.2 Depreciation options

Press More options (top-right) to show more depreciation options:



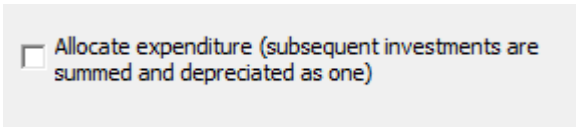
More functions will be available in the Depreciation method dialog box:



A shift factor of 1, 1.25 or 1.5 can be used to consider wearing of the asset in shift use. These factors are used in Germany. When shift factor 1 is used, the depreciation is not altered.

3.2.4.2.1 Investment expenditure allocated

Subsequent investment expenditures can be depreciated as one investment using the Allocate expenditure option:



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Example of a 2,000,000 € investment depreciated starting 12/2005 in a traditional straight-line matter and allocated as one investment expenditure:

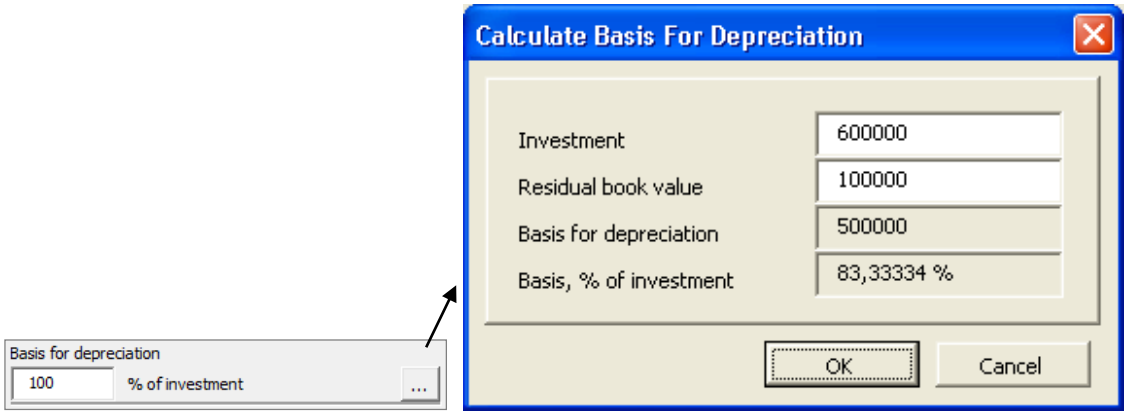
INVESTMENTS (-) / REALIZATIONS (+)

€		1/2005	12/2005	12/2006	12/2007
Months per interval	Depr.-%		12	12	12
1 **Straight line**	**10,00%**	**-100 000**	**-300 000**	**-500 000**	**-1 100 000**
Depreciation (straight line)			-40 000	-90 000	-200 000
Book value		100 000	360 000	770 000	1 670 000
2 **Straight line allocated**	**10,00%**	**-100 000**	**-300 000**	**-500 000**	**-1 100 000**
Depreciation (straight line)			-200 000	-200 000	-200 000
Book value		100 000	1 800 000	1 600 000	1 400 000

The allocated investment expenditures (2) are depreciated as a whole from the first depreciation, whereas traditional investment expenditures (1) depreciations accrue with the book value.

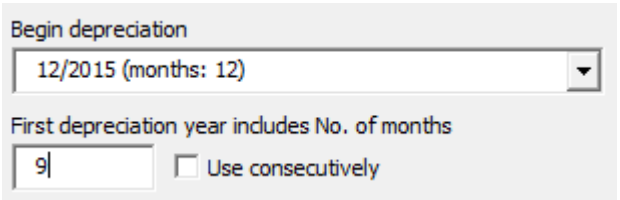
3.2.4.2.2 Basis for depreciation

In most cases, the basis for depreciation is 100% of the purchase price. In some cases, however, the basis is not 100%. An example of this is an asset with a known salvage cost at the end of the economic lifetime. The basis can be entered or calculated using a calculation dialog box (opened from the Depreciations dialog box):



3.2.4.2.3 Begin depreciation

Select the period when depreciation begins. Then select how many months should be depreciated that period. E.g. If your calculation is on annual basis and operations start 1st of April 2015; for Straight line depreciation select 'Begin depreciation' 12/2015, and then select 'First depreciation year includes' 9 months (April-Dec.).



3.2.4.2.4 First depreciation

Enter the number of months on which to base the calculation of depreciation for the first interval. You can enter the actual number of months, or if local legislation allows it, you can use a simplified method, according to which depreciation is calculated over 12 months, although the investment was made near the end of the financial year. Default value is 12 months.

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3.2.4.2.5 Use consecutively

The ‘Use consecutively’ –option is useful when investments continue during many years of operation. Typical use: If you want each year’s new investments to be depreciated for a half year, enter 6 months and select the ‘Use consecutively’ –option.

3.2.4.2.6 Old investment

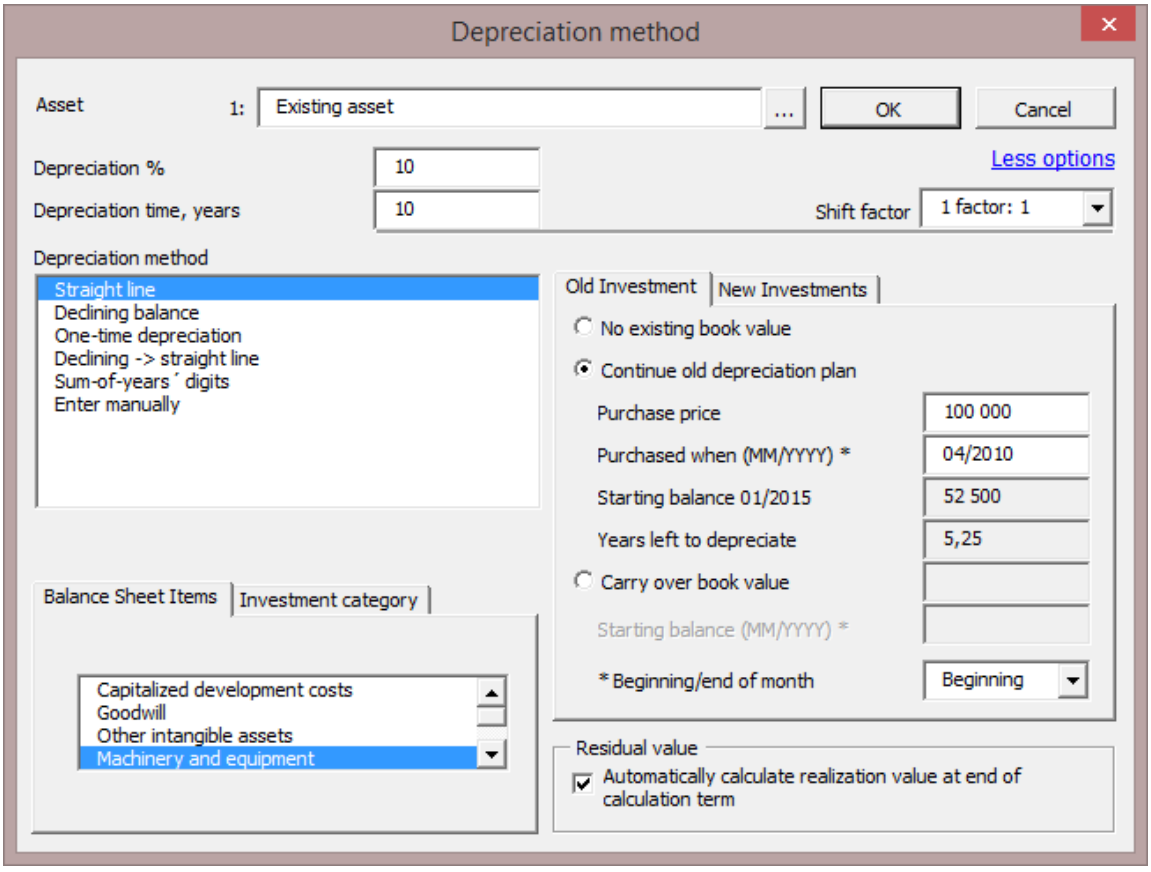
It is possible to include depreciation of an existing asset in the calculation. The book value (and depreciation method) of an existing asset can be specified in the "Old investment" page. For the best quality calculation, find out the purchase price of the asset, when it was purchased, how it is depreciated and use the "Continue old depreciation plan" option.

Note that including an old investment in the investment table is an alternative to including (and depreciating) book values in the balance sheet.

In chapter 3.1.1.3 the use of historical periods was explained. Including an old investment in the investment table does not require including historical periods in the calculation. However, if historical periods are not used and no opening balance sheet items have been entered, there will be a difference in the balance sheet.

3.2.4.2.7 Continue old depreciation plan

Enter purchase price and time. Depreciation will be calculated using these parameters. It is not necessary to include historical periods in the calculation for this. However, if a complete starting balance is not entered in a historical period, there will be an unaddressed difference in the balance sheet.



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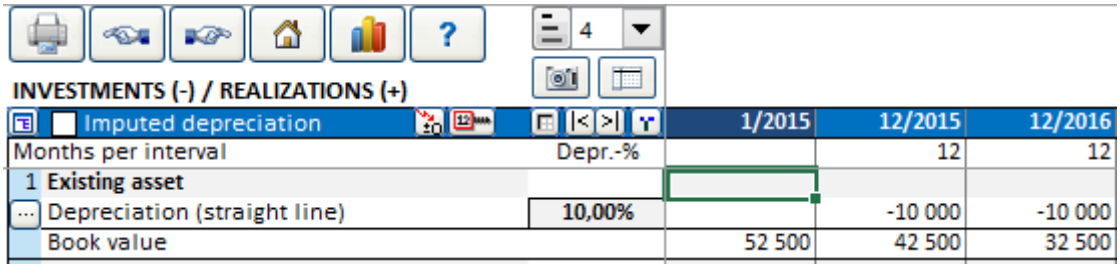
The old depreciation plan will continue in the calculation term of the file.

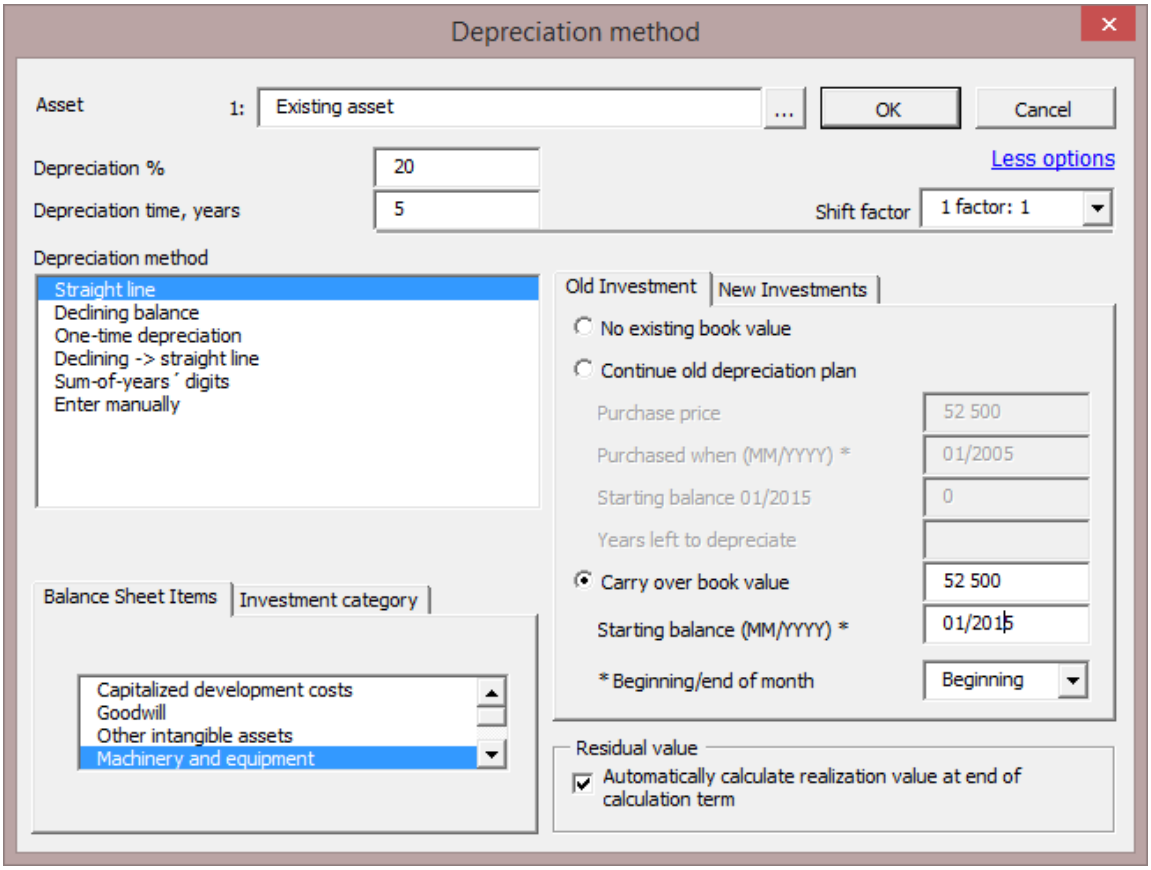


INVESTMENTS (-) / REALIZATIONS (+)

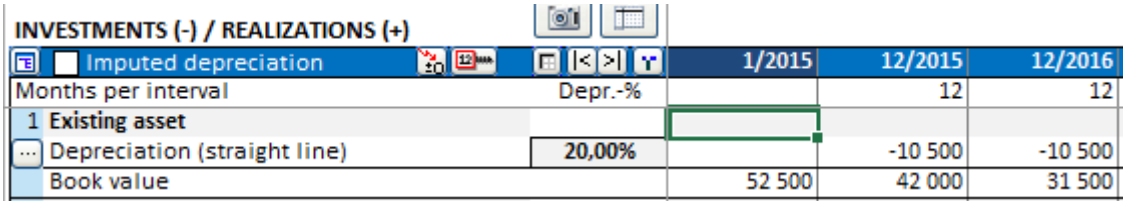
Imputed depreciation		1/2015	12/2015	12/2016
Months per interval	Depr.-%		12	12
1 Existing asset				
Depreciation (straight line)	10,00%		-10 000	-10 000
Book value		52 500	42 500	32 500

3.2.4.2.8 Carry over book value

The book value of an existing asset can be carried over to a chosen point-of-time in the investment table and depreciated with a new depreciation plan using the Carry over book value option:



There is no initial cash-flow effect so the only effect is the tax effects of the depreciations and a possible realization/residual value.



INVESTMENTS (-) / REALIZATIONS (+)

Imputed depreciation		1/2015	12/2015	12/2016
Months per interval	Depr.-%		12	12
1 Existing asset				
Depreciation (straight line)	20,00%		-10 500	-10 500
Book value		52 500	42 000	31 500

Note that since this introduces a new asset to the calculation without any cash flow, there will be an in balance in the balance sheet:

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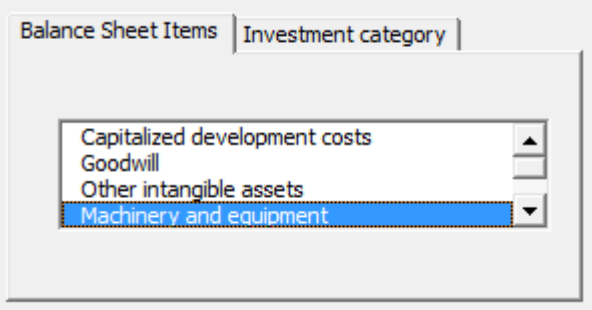
BALANCE SHEET

	1/2015	12/2015	12/2016	12/2017	Residual
ASSETS					
Fixed assets and other non-current assets					
Total fixed assets and other non-current assets	52 500	42 000	31 500	21 000	0
Total Current Assets	0	0	0	0	21 000
ASSETS	**52 500**	**42 000**	**31 500**	**21 000**	**21 000**
SHAREHOLDERS' EQUITY AND LIABILITIES					
Total shareholders' equity	0	-10 500	-21 000	-31 500	-31 500
Liabilities					
Total liabilities	0	0	0	0	0
SHAREHOLDERS' EQUITY AND LIABILITIES	**0**	**-10 500**	**-21 000**	**-31 500**	**-31 500**
Check: Equity and liabilities - Assets	-52 500	-52 500	-52 500	-52 500	-52 500

NOTE! The depreciation of the old investments will affect taxes in the same way that depreciation of new investments will. The result of the calculation will be altered. This option can be used in combination with the "Marginal effect" function.

3.2.4.2.9 Balance sheet items

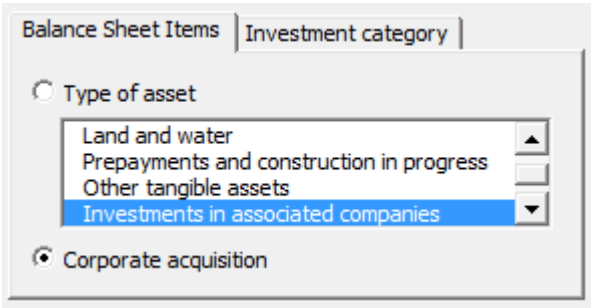
Define whether the investment concerns **Tangible assets** (fixed property), **Intangible assets** (e.g. software) or **Investments** (securities).



The only effect of the ”Type of asset” –selection is the correct grouping of assets in Balance sheet. It does not affect result in any way.

3.2.4.2.10 Corporate acquisition (available only in the ‘corporate acquisition / valuation’ template in Enterprise edition)

Select this option only when you are entering the purchase price of an acquisition. This item will not be included in the balance. The cost of the acquisition will be included in the cash flow of the investment, in order to ensure that the profitability analysis of the acquisition is correct.



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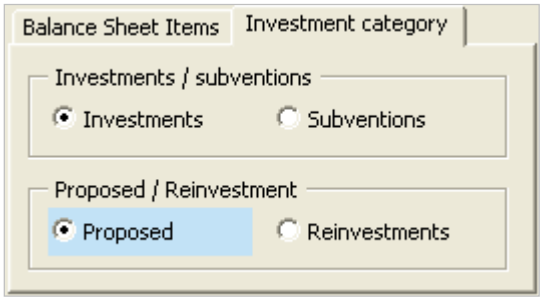
3.2.4.2.11 Investment category



Investment category is used for directing investments to different categories in the profitability analysis on the result sheet.

3.2.4.2.12 Investments / Subventions

Select "Investment" for a normal investment. Select "Subventions" if you want to separate the subvention part from an investment. Subvention = subsidy or grant. Note that the investment should be entered as a (negative) gross amount and the subvention as a positive amount. Use the same depreciation method and percent for investment and subvention:

1	**Project XY gross investment**		**-250 000**		
⋯	Depreciation (straight line)	**10,00%**		-25 000	-25 000
2	**Project XY subvention**		**25 000**		
⋯	Depreciation (straight line)	**10,00%**		2 500	2 500
Investments			**-225 000**	**0**	**0**
Realizations			0	0	0
Depreciation			0	-22 500	-22 500
Realization profit (+) / loss (-)			0	0	0
Book value			225 000	202 500	180 000

Investments and subventions are separated in the Profitability analysis:

Investment proposal	Nominal	PV
Proposed investments in assets	-250 000	-250 000
Investment subventions	25 000	25 000
Investment proposal	-225 000	-225 000

3.2.4.2.13 Proposed / Reinvestments

This categorisation can be used to separate initial proposed investments from reinvestments. A normal use of this category: proposed investments require funding whereas reinvestments are covered by operative cash flow. Reinvestments are typically maintenance investments. Proposed investments are shown with blue background.

Investment table:

1	**New investments**		**-254 300**	**-68 345**			
⋯	Depreciation (straight line)	**20,00%**		-64 529	-64 529	-64 529	-64 529
	Book value		254 300	258 116	193 587	129 058	64 529
2	**Subsidy**		**50 860**				
⋯	Depreciation (straight line)	**20,00%**		10 172	10 172	10 172	10 172
	Book value		-50 860	-40 688	-30 516	-20 344	-10 172
3	**Reinvestments**				**-50 000**		**-60 000**
⋯	Depreciation (straight line)	**20,00%**			-10 000	-10 000	-22 000
	Book value		0	0	40 000	30 000	68 000

Profitability analysis (Result sheet):

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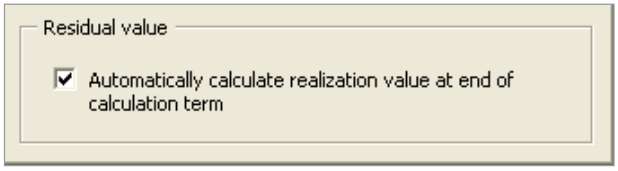
-	Present value of reinvestments	-110 000	-110 000
	Total Present Value (PV)		**456 404**
	Investment proposal	Nominal	PV
-	Proposed investments in assets	-322 645	-322 645
+	Investment subventions	50 860	50 860
	Investment proposal	-271 785	-271 785
	Net Present Value (NPV)		**184 619**

3.2.4.2.14 Residual value

Book value at the end of the calculation term is automatically realized (sold) when automatic residual calculation is checked. This gives a cash flow effect of the Residual book value of asset. This option is only available if the residual column is used.

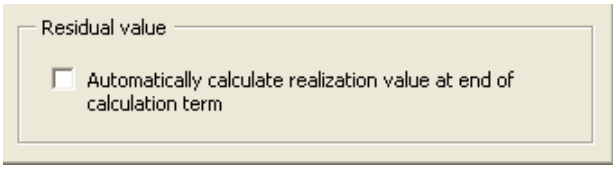


INVESTMENTS (-) / REALIZATIONS (+)

			1/2005	12/2005	Residual
Months per interval		Depr.-%		12	(12/2005)
1		20,00%	-100		80
···	Depreciation (straight line)			-20	
	Book value		100	80	0

Now the object is liquidated at book value.

If you remove the tick (unchecked):



INVESTMENTS (-) / REALIZATIONS (+)

			1/2005	12/2005	Residual
Months per interval		Depr.-%		12	(12/2005)
1		20,00%	-100		
···	Depreciation (straight line)			-20	
	Book value		100	80	80

Now the asset is not liquidated (no residual effect on cash flow).

You may always enter the residual value of the object:

INVESTMENTS (-) / REALIZATIONS (+)

			1/2005	12/2005	Residual
Months per interval		Depr.-%		12	(12/2005)
1		20,00%	-100		30
···	Depreciation (straight line)			-20	
	Book value		100	80	0

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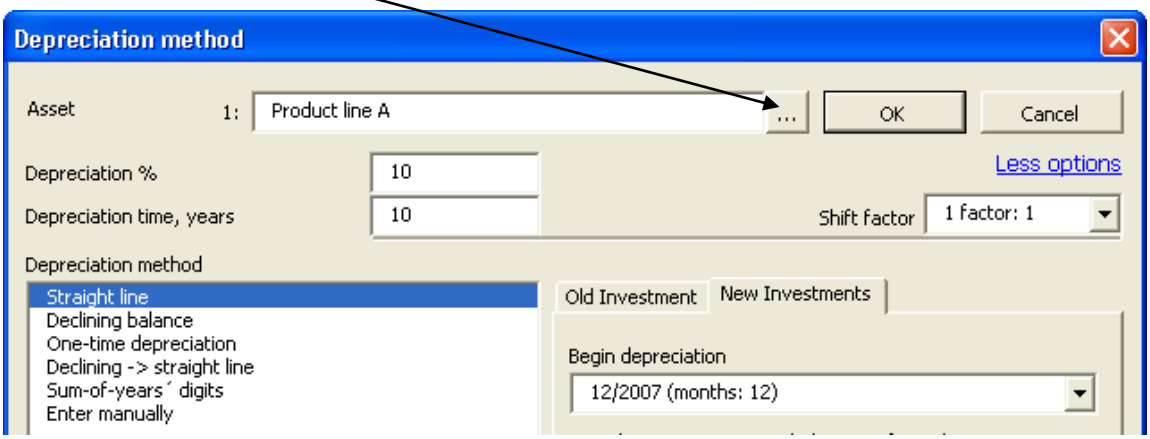
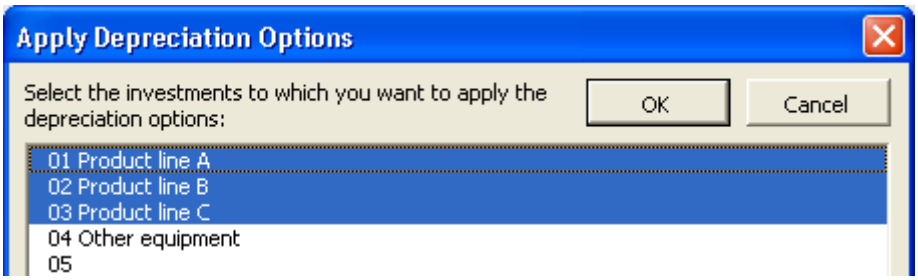
3.2.4.2.15 Apply depreciation options to multiple investments

Depreciation options defined for one asset can easily be applied to multiple investments. This will save time if you have many assets using the same or similar depreciation options.

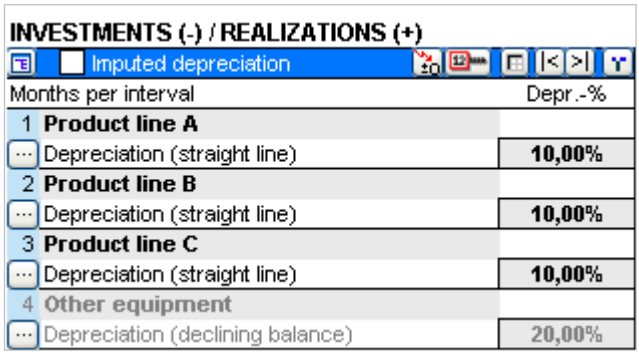
Press the ... button beside the asset name to open the "Apply Depreciation Options" dialog box.



Select the investment rows you want to apply the depreciation options to.



With the exception of old investment options, all depreciation options are applied to the selected assets.



Any investments depreciation options can be altered separately afterwards if there are some options that are not the same for each asset.

3.2.4.3 Imputed depreciation

Investments in the Investment table can be depreciated using two separate depreciation schedules, one for income tax effects and an imputed depreciation schedule for internal profit effects.

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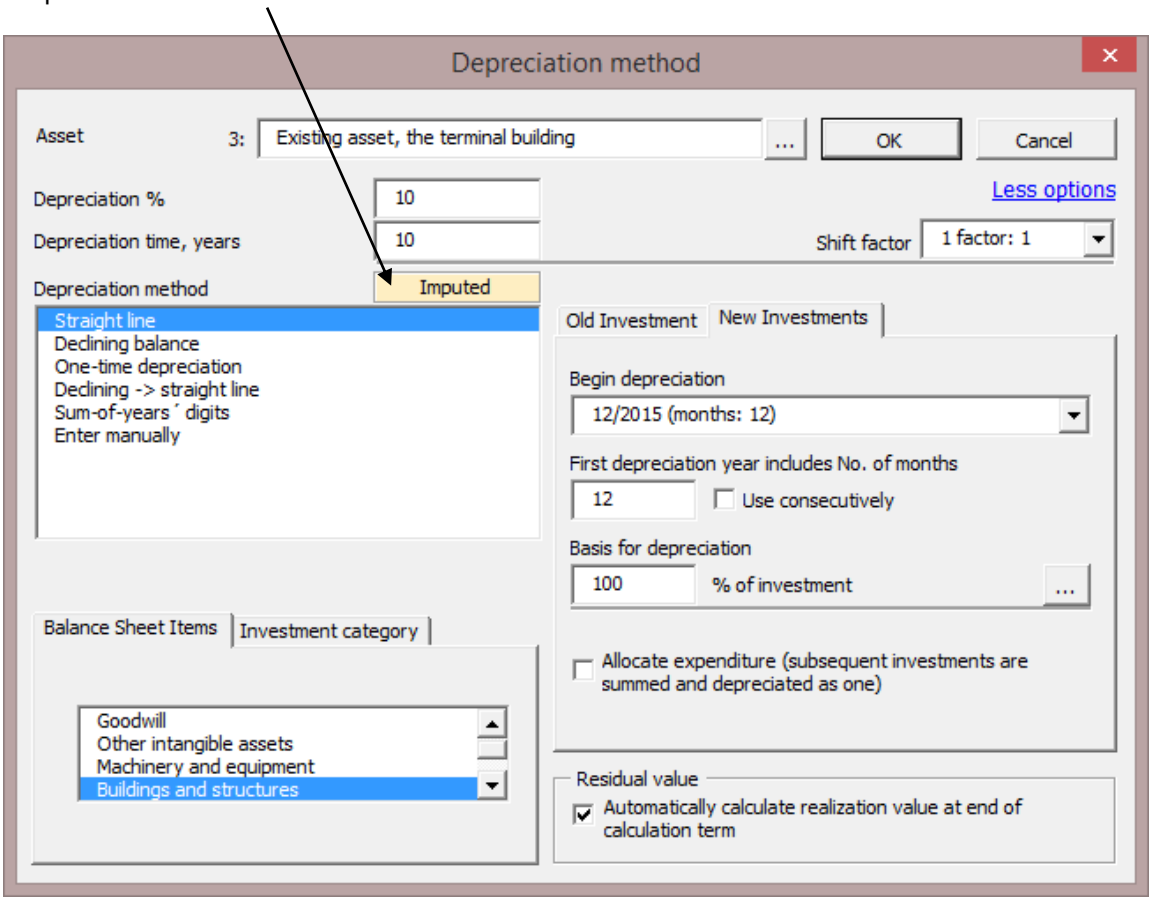
Activate imputed depreciation in the header bar of the investment table:

Imputed depreciation rows are shown with yellow background:

INVESTMENTS (-) / REALIZATIONS (+)

Imputed depreciation	Depr.-%	1/2007	12/2007	12/2008	12/2009	12/2010	12/2011	Residual
Months per interval			12	12	12	12	12	(12/2011)
1								0
Depreciation (straight line)								
Imputed depreciation (straight line)								
2								0
Depreciation (straight line)								
Imputed depreciation (straight line)								
3								0
Depreciation (straight line)								
Imputed depreciation (straight line)								
4								0
Depreciation (straight line)								
Imputed depreciation (straight line)								
Investments		0	0	0	0	0	0	
Realizations		0	0	0	0	0	0	0
Depreciation		0	0	0	0	0	0	
Realization profit (+) / loss (-)		0	0	0	0	0	0	0
Book value		0	0	0	0	0	0	0
Internal								
Realizations		0	0	0	0	0	0	0
Imputed depreciation		0	0	0	0	0	0	
Realization profit (+) / loss (-)		0	0	0	0	0	0	0
Imputed book value		0	0	0	0	0	0	0

In the "Depreciation method" dialog box, imputed depreciation is separated with a yellow "Imputed" box:



Independent from tax deprecation, imputed depreciation can be calculated using any depreciation method:

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1	**New investment X**		**-10 000**			
⋯	Depreciation (declining balance)	**30,00%**		-3 000	-2 100	-1 470
	Book value		10 000	7 000	4 900	3 430
⋯	Imputed depreciation (straight line)	**20,00%**		-2 000	-2 000	-2 000
	Imputed book value		10 000	8 000	6 000	4 000

In the Income statement, imputed depreciation is shown before EBIT. The difference between imputed depreciation and tax depreciation is shown on "Depreciation in excess of (-) / under (+) imputed" row before taxes:

EBITDA; Operating income before depreciation		**4 351**	**4 395**	**4 438**	**4 483**
Depreciation	0	-2 000	-2 000	-2 000	-2 000
EBIT; Operating income	**0**	**2 351**	**2 395**	**2 438**	**2 483**
Financing income and expenses					
≡ Financing income and expenses					
! Financing income and expenses Financing file					
EBT; Income after financing items	**0**	**2 351**	**2 395**	**2 438**	**2 483**
Extraordinary income and charges					
Realization profit (-loss)	0	0	0	0	0
≡ Other extraordinary income (-charges)					
Income before appropriations and taxes	**0**	**2 351**	**2 395**	**2 438**	**2 483**
Change in appropriations					
Depreciation in excess of (-) / under (+) imputed	0	-1 000	-100	530	971
Other appropriations, increase (-) / decrease (+)					
Income tax	0	-378	-642	-831	-967
Minority interest					
Net income for the period	**0**	**973**	**1 652**	**2 137**	**2 487**

In the Balance sheet, fixed assets book values are calculated using imputed depreciation. The difference between imputed and total depreciation (i.e. cumulative Depreciation in excess of (-) / under (+) imputed) is included in "Accumulated appropriations".

BALANCE SHEET

	1/2006	12/2006	12/2007	12/2008	12/2009
Months per interval		12	12	12	12
ASSETS					
Fixed assets and other non-current assets					
Intangible assets	0	0	0	0	0
Tangible assets	10 000	8 000	6 000	4 000	2 000
Investments	0	0	0	0	0
Total fixed assets and other non-current assets	10 000	8 000	6 000	4 000	2 000
Current Assets					
Inventories and work in progress	0	0	0	0	0
Accounts receivable	0	0	0	0	0
Other receivables	0	0	0	0	0
Bank and cash	-10 000	-6 027	-2 275	1 332	4 848
Total Current Assets	-10 000	-6 027	-2 275	1 332	4 848
ASSETS	**0**	**1 973**	**3 725**	**5 332**	**6 848**
SHAREHOLDERS' EQUITY AND LIABILITIES					
Shareholders' equity					
Share capital	0	0	0	0	0
Share issue premium	0	0	0	0	0
Other restricted equity	0	0	0	0	0
Retained earnings	0	0	973	2 625	4 762
Profit (loss) for the period	0	973	1 652	2 137	2 487
Total shareholders' equity	0	973	2 625	4 762	7 249
Accumulated appropriations	0	1 000	1 100	570	-401
Minority interest	0	0	0	0	0
Liabilities					
Long-term liabilities	0	0	0	0	0
Short-term liabilities	0	0	0	0	0
Total liabilities	0	0	0	0	0
SHAREHOLDERS' EQUITY AND LIABILITIES	**0**	**1 973**	**3 725**	**5 332**	**6 848**

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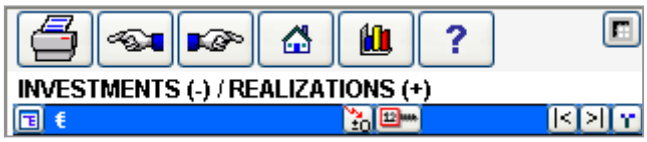
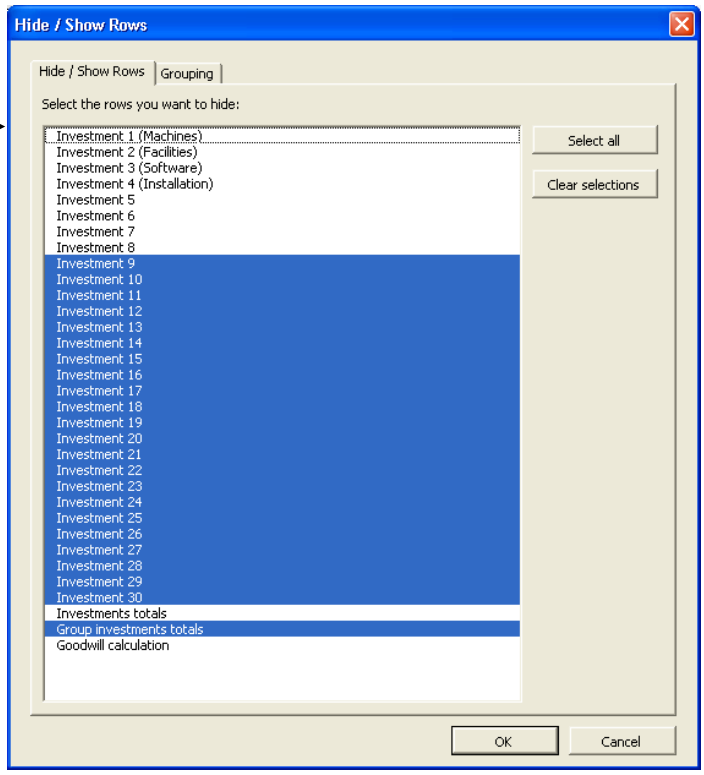
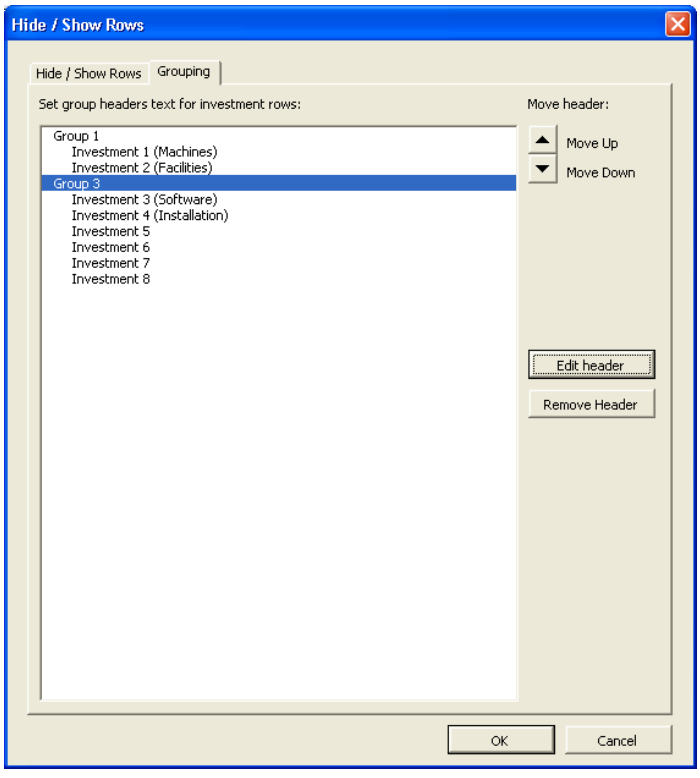
3.2.4.4 Hiding rows and grouping investments



By clicking the button on the left of the blue bar you can add investment rows to the screen or hide unnecessary rows.





You can add group headers for investments of similar kind. Headers can be edited, moved or removed at any time. Group headers are informative and don't affect calculation.

Headers can be defined in each language by clicking the 'Edit header' -button (*Only Editions Pro & Enterprise)*:

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3.2.5 Income statement

Use the **Income statement** table to input all incomes and expenses estimated to arise from the implementation of this investment. Consider the Income statement as a **Profit/ loss account** of planned project/ investment/ business. The Income statement is one of the financial statements. It displays the revenues recognized for a specific period, and the cost and expenses charged against these revenues, including depreciations of various assets and taxes. The purpose of the income statement is to show you whether the project/ investment/ business made or lost money during each period.

One important thing to remember about an income statement is that it represents a period of time like the cash flow statement. This contrasts with the balance sheet, which represents a single moment in time.

You may want to do preliminary calculations in other Excel worksheets to get the values you want to enter in this Invest for Excel table. You can make links to the results of Excel tables and show them here, or to a separate workbook conveniently linked to the Invest for Excel table. You can also create additional worksheets from the Invest for Excel menu item **Format**.

You may use Excel's functions and features quite freely. For instance, you can copy data from your own calculation tables, create new formulas to calculate figures in the income and cost rows, etc. You can personally name all row headings in the shaded areas.

The blue bar at the top of the **Income statement** table shows the investment calculation term entered under **Basic Values**. It is divided into intervals specified by you, and their length in months is shown below each heading.

INCOME STATEMENT

	1/2015	12/2015	12/2016	12/2017	Residual
Months per interval		12	12	12	(12/2017)
Income specified:					
Income	**0**	**0**	**0**	**0**	**0**
Other operating income					
Variable costs	0	0	0	0	0
Raw materials and consumables					
External charges					
Staff costs					
Other variable costs					
Gross margin	**0**	**0**	**0**	**0**	**0**
Fixed costs	0	0	0	0	0
Staff costs					
Rents					
Other fixed costs					
Provisions, increase (-) / decrease (+)					
EBITDA; Operating income before depreciation	**0**	**0**	**0**	**0**	**0**
Depreciation	0	0	0	0	0
EBIT; Operating income	**0**	**0**	**0**	**0**	**0**
Financing income and expenses	0	0	0	0	0
Financing income and expenses					
Financing income and expenses Financing file					
EBT; Income after financing items	**0**	**0**	**0**	**0**	**0**
Extraordinary income and charges	0	0	0	0	0
Realization profit (-loss)	0	0	0	0	0
Other extraordinary income (-charges)					
Income before appropriations and taxes	**0**	**0**	**0**	**0**	**0**
Change in appropriations					
Appropriations, increase (-) / decrease (+)					
Income tax	0	0	0	0	0
Deferred tax					
Minority interest					
Net income for the period	**0**	**0**	**0**	**0**	**0**
Return on net assets (RONA), %		**0,0%**	**0,0%**	**0,0%**	**0,0%**
Economic Value Added (EVA)		**0**	**0**	**0**	**0**

The first calculation column reflects the beginning of the investment (the zero point in time), and is not used in the Income statement. The first input/ calculation interval is in the next column. Its duration might depend on the end of the financial year: If detailed periodization has been selected and if the interval has been defined as 12 months long, the investment term starts at the e.g. in the beginning of March and the financial year ends on December 31st, the second column covers 10 months. As default the columns are on annual basis (full year).

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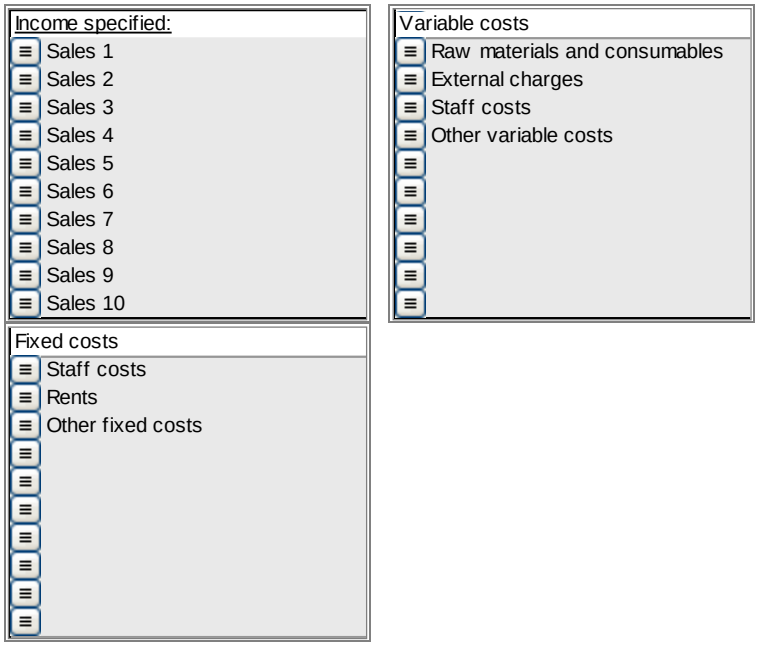
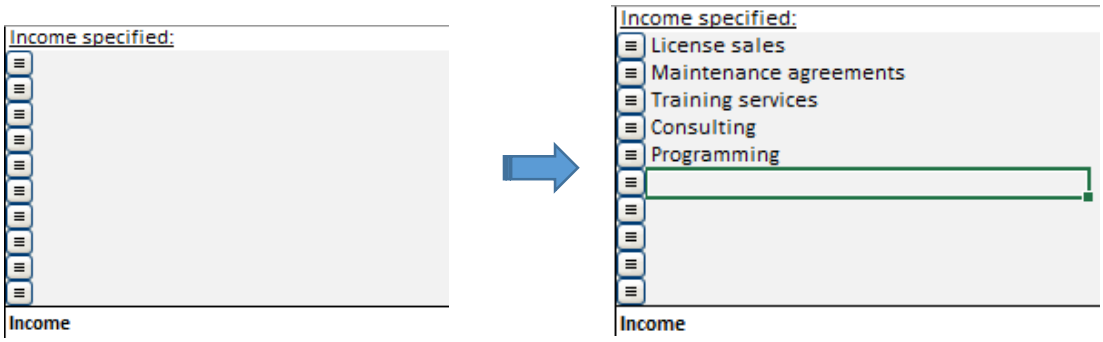
In the income statement there are 10 income rows, 10 variable cost rows and 10 fixed cost rows available, all with the possibility to add sub-rows.



As two levels of up to 99 sub-rows are available, you can have up to 98010 rows for income, for variable costs and for fixed costs (10 * 99 * 99 = 98010).

3.2.5.1 Entering income

On the rows under the header "Income specified:" you can write sub-headings:



Income can be entered in the table in the following complementary ways:

1) As figures or Excel formulas in cells on income rows.
2) By reference or link to another calculation, e.g. another Excel spreadsheet.
3) For the first period only (Note: check the time span – does the column cover a month, a quarter, etc.); then distribute the income to other columns with the ancillary function of this button: shown in the blue bar.
4) By using Invest for Excel operators as illustrated in picture below (e.g. multiply the increase in capacity obtained through the investment with the utilization rate and the sales price).

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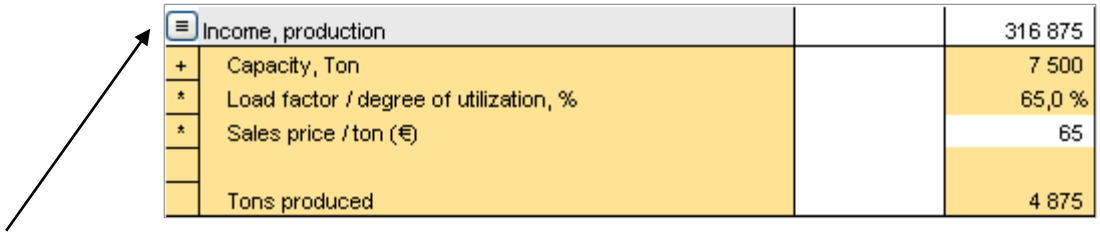

≡	Income, production		316 875
+	Capacity, Ton		7 500
*	Load factor / degree of utilization, %		65,0 %
*	Sales price / ton (€)		65
	Tons produced		4 875

≡ Click the button to the left to specify the income more precisely. You may hide (and un-hide) the specification, in order to show the sum of this row only. The sums of all rows will be added up to a sum total in the **Income** row. For specifying income you may use up to 98010 rows (10 sub headers [grey] * 99 Specification rows [yellow] * 99 Detail level rows [fawn, light yellow brown]. 10 * 99 * 99 = 98010. Additionally you can link to other Sheets and Workbooks.

You may use the calculation operators (+ - * / or blank) of the drop down menu, when specifying the relationships between the income rows. When you start a new investment calculation, the default operator is "+". Change the operator when necessary. As one of the operators is a blank space, you can specify that row as informative text because the figure will not sum up, or as a variable for use elsewhere.

INCOME STATEMENT

EUR		1/2015	12/2015	12/2016	12/2017
Months per interval			12	12	12
≡ Passenger traffic			1 400 000	1 513 680	1 631 347
+ Number of passengers			5 000	5 300	5 600
* Average ticket price	2,00 %		280	286	291
≡ Mail service revenue			200 000	200 000	200 000
Turnover		**0**	**1 600 000**	**1 713 680**	**1 831 347**
(cumulative financial year)			1 600 000	1 713 680	1 831 347
≡ Other operating income					
Variable costs		0	-269 760	-282 499	-295 640
≡ Fuel costs			-194 760	-201 409	-208 246
+ Fuel costs empty plane			-149 760	-152 755	-155 810
+ Fuel cost per flight	2,00 %		-720	-734	-749
* Number of flights			208	208	208
+ Fuel costs from passenger weight					
+ Fuel cost per passenger	2,00 %				
* Number of passengers					
≡ Handling costs			-75 000	-81 090	-87 394
+ Handling cost per passenger	2,00 %		-15	-15	-16
* Number of passengers			5 000	5 300	5 600
Gross margin		**0**	**1 330 240**	**1 431 181**	**1 535 707**
(cumulative financial year)			1 330 240	1 431 181	1 535 707
% (cumulative financial year)			83,1%	83,5%	83,9%
Fixed costs		0	-582 500	-594 150	-606 033
≡ Staff costs			-250 000	-255 000	-260 100
+ Air crew	2,00 %		-200 000	-204 000	-208 080
+ Ground staff	2,00 %		-50 000	-51 000	-52 020
≡ Maintenance costs			-332 500	-339 150	-345 933
+ Maintenance costs	2,00 %		-332 500	-339 150	-345 933
Maintenance cost %			7 %		
≡ Rents	2,00 %				
EBITDA		**0**	**747 740**	**837 031**	**929 674**

You may name specification rows and detail rows as you wish.

Income (cumulative financial year) shows cumulative incomes per financial year. For example, if the financial year is 12 months, and the calculation is monthly, income is cumulated, e.g.:

	1/2015	1/2015	2/2015	3/2015	4/2015	5/2015	6/2015	7/2015	8/2015	9/2015	10/2015	11/2015	12/2015
Months per interval		1	1	1	1	1	1	1	1	1	1	1	1
Income	0	87 500	88 214	88 934	89 660	90 392	91 130	91 874	92 624	93 380	94 142	94 911	95 685
(cumulative financial year)		87 500	175 714	264 648	354 308	444 700	535 830	627 704	720 327	813 707	907 849	1 002 759	1 098 445

Use the row **Other operating income** to enter extraordinary income outside of main business.

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3.2.5.2 Entering costs

There are already some headings for **Variable costs**, which you may change at will. They are of the grey input field type. Remember to enter costs as negative values (outward cash-flow)!

Click the button to the left to specify the rows more precisely. You may hide (and restore) the specification, in order to show the product of this row only. You have all the same functionality to add rows as in income (10*99*99=98 010 rows for variable costs). The variable costs of the investment reduce the profits for the period. The difference is shown as gross margins per interval and financial year, and as a percentage of the profits per cumulative financial year.

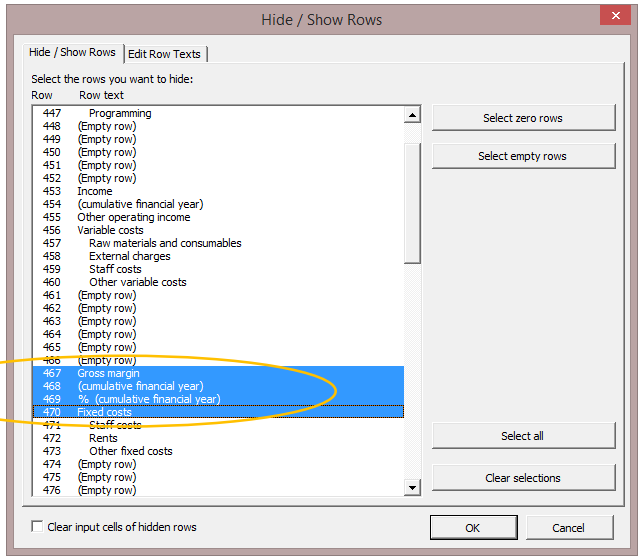
Remember to enter costs as negative values!

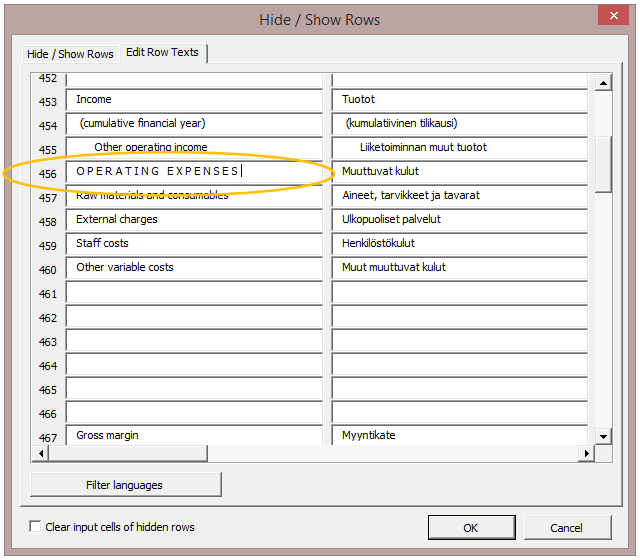
You can use the formulas to specify other costs, as well.

There are already some headings for **Fixed costs**, which you may change at will.

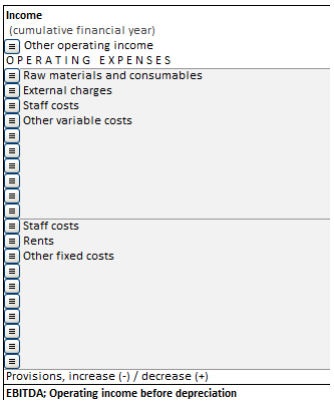
- Click the button on the left hand side to specify the rows more precisely. You may hide the specification, in order to show the product of this row only.

Hint! It is not compulsory to split the costs in variable and fixed. Just hide the rows between variable and fixed costs, and change the heading:





Result:



Depreciation does not affect the cash flow of an investment directly. Depreciation has an effect on taxation through EBIT; Operating income, and thereby indirectly on cash flow.

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Note! When estimating the feasibility of an investment, its mode of financing is usually not taken into account. The assumption is that the financing cost is the discount rate. This principle is based on the idea that the investment itself should first prove itself profitable, before doing more detailed plan of financing. Normally financing is taken into account only if the investment object is tied to a particularly beneficial mode of financing (e.g. a subsidy/ subvention).

The row **Financial income and expenses** is for entering financing costs and income from financing. You can enter the NET of financing income and expenses on one row, or you can use specification rows (and detailed rows) to specify financing costs an
Users of *Enterprise* -edition can use the financing module for the calcu
other types of financing costs involved. The costs associated with financing, as calculated in the Financing module, can be imported to this table using the button.

You may name specification rows and detail rows as you wish.

NOTE! Please note, that financing costs do not affect NPV, IRR or Payback, by default!

- In the 'Income Tax Options' dialog (button) in 'BASIC VALUES' you can select to include tax effects from financing.

Extraordinary income and expenses:

Realisation profit (or loss) from investment objects (this data comes straight from the Investment table) **Extraordinary income (or expenses),** expressly associated with the implementation of this investment, are given here. Use as many rows as you need.

Income tax = total income taxes for the financial year. The income tax is calculated as a percentage of the sum of 'Income before appropriations and taxes' and Appropriations. Other tax options are available, see 3.1.2.4.

Net income for the period (profit /loss) is shown per period, cumulatively per financial year, and as a percentage of the profits per cumulative financial year. The 'Net income for the period' is the sum of 'Income before appropriations and taxes', 'Appropriations, increase (-) / decrease (+)', 'Income tax', 'Deferred tax' and 'Minority interest'.

3.2.5.3 Specification and detail rows

Invest for Excel allows flexible handling and processing of rows. You can add, name, delete and hide specification rows freely for many rows with the buttons. You can also select calculation operators by yourself. For an example, see the table below:

		1/2005	12/2005	12/2006
	Months per interval		12	12
	Income specified:			
	Income, production		316 875	439 558
+	Capacity, Ton		7 500	10 000
*	Load factor / degree of utilization, %		65,0 %	66,6 %
*	Sales price / ton (€)		65	66
+	Sales price, component 1		50	51
+	Sales price, component 2		15	15
	Tons produced		4 875	6 663

In the calculation shown, the user has:

1. Named the first row 'Income production'.

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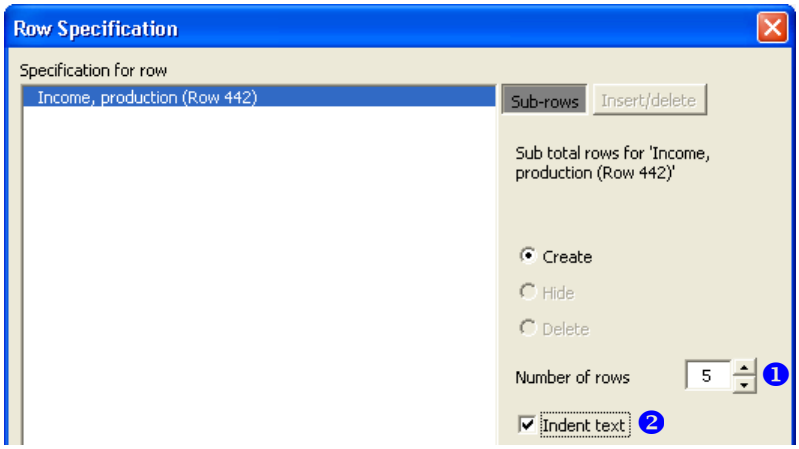
2. Clicked the button and created five specification rows.
3. Named the specification rows.
4. Clicked the button again and created two additional detail rows for "Sales price/ ton". Entered row names “price component 1 (& 2)”.
5. Entered multiplier (*) as operator for two specification rows (Load factor & Sales price)
6. Entered the values in column for 2005.
7. Entered an Excel formula for tonnes produced (Excel formula =Capacity * Load factor).
8. Deleted operator for the row “Tonnes produced” (only for information, not to be included in calculation of the product of specification rows).
9. Distributed the values from 2005 to other periods with the Copy/ distribute button.

3.2.5.3.1 Create row specification

Click the button to open the following Row specification dialog box.



Enter number of rows ❶ to add. Five rows is default. You can freely change the number of rows to be created (max. 99). You can also choose if you want to indent ❷ the texts or not. When you have created the additional rows, you will notice that the actual row (host) has become a white, protected total row. If there were numbers on the actual row they are moved to the first new additional row. Enter descriptions for the new rows.

3.2.5.3.2 Modify row specification

Click the button to open the dialog box. The Modify ❶ option is chosen by default.

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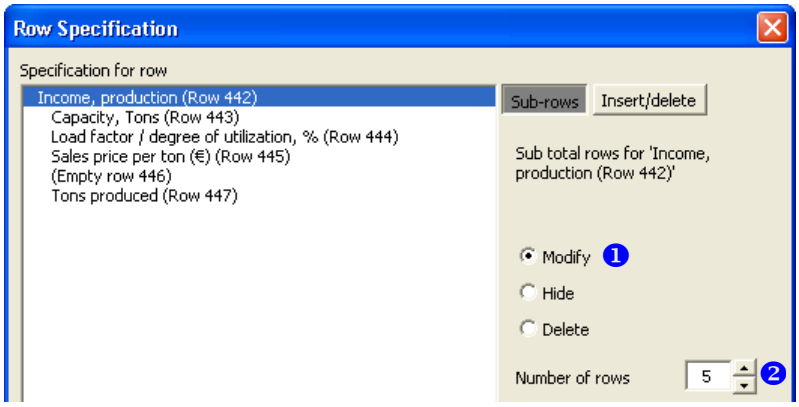


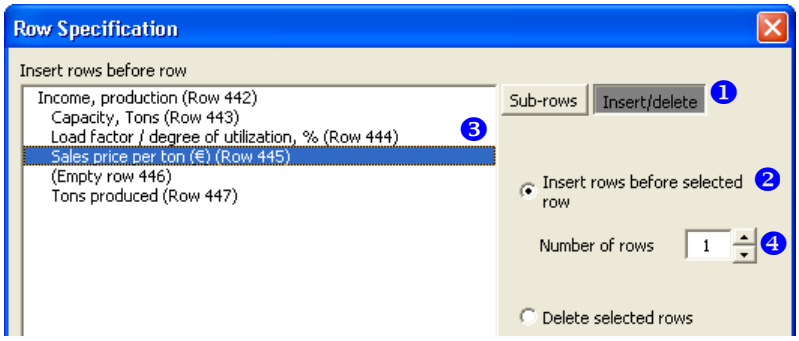
You can change the number of rows ❷ with the Modify function. Increasing number of rows will add rows to the end of the row specification. Decreasing number of rows will delete rows from the end of the specification.

3.2.5.3.3 Insert rows before selected row

To insert rows before a specific row (as opposed to adding to end using the Modify function), follow these instructions:

Click the ≡ button to open the dialog box.

❶ Activate the **Insert/delete** page
❷ Choose option Insert rows before selected row (chosen by default)
❸ Select the row, before which you want to enter rows
❹ Enter number of rows to insert (default is one row) and click OK.



3.2.5.3.4 Delete selected rows

To delete selected rows (as opposed to deleting from the end the Modify function), follow these instructions:

Click the ≡ button to open the dialog box.
❶ Activate the **Insert/delete** page
❷ Choose option Delete selected rows
❸ Select the rows you want to delete and click OK.

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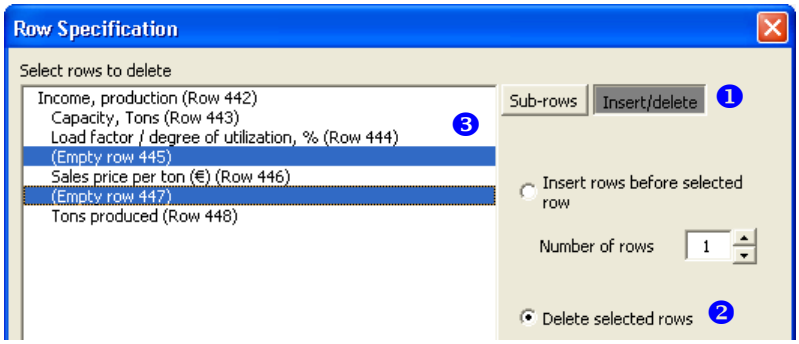
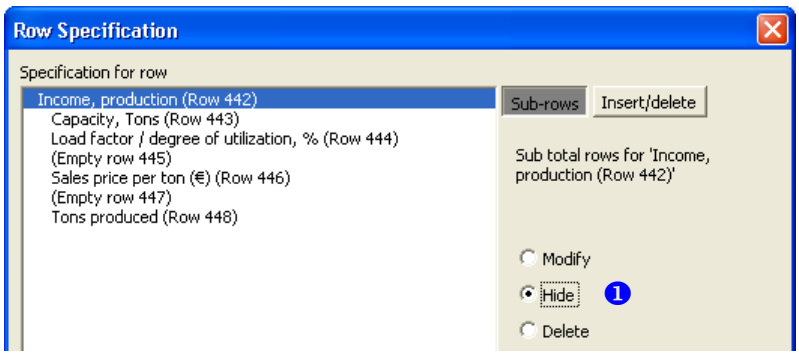
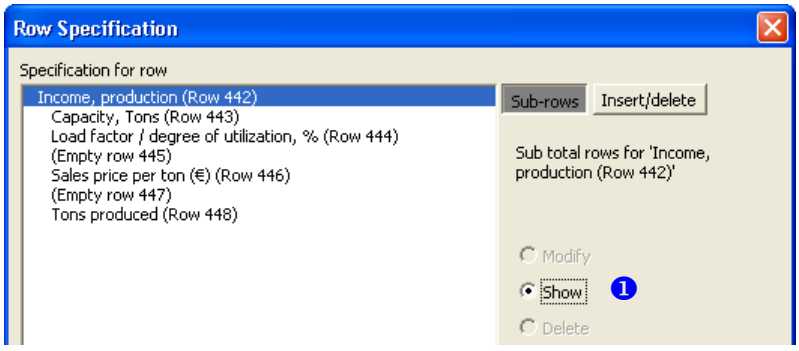


3.2.5.3.5 Hide/show row specification

When you want to hide a row specification, click the ≡ button to open the dialog box, choose Hide ❶ and click OK.

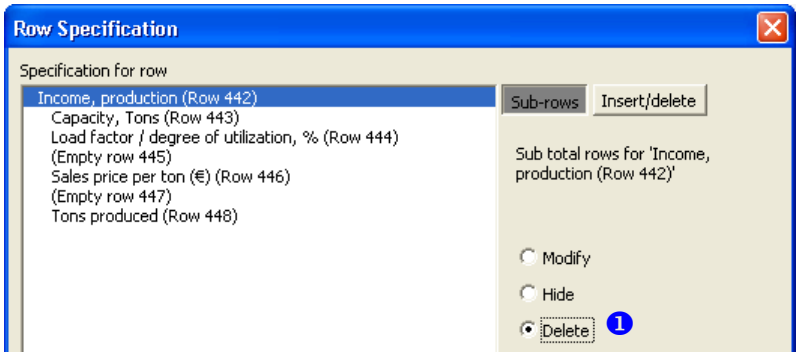


To show (unhide) a hidden row specification, click the ≡ button to open the dialog box, choose Show ❶ and click OK.



3.2.5.3.6 Delete row specification

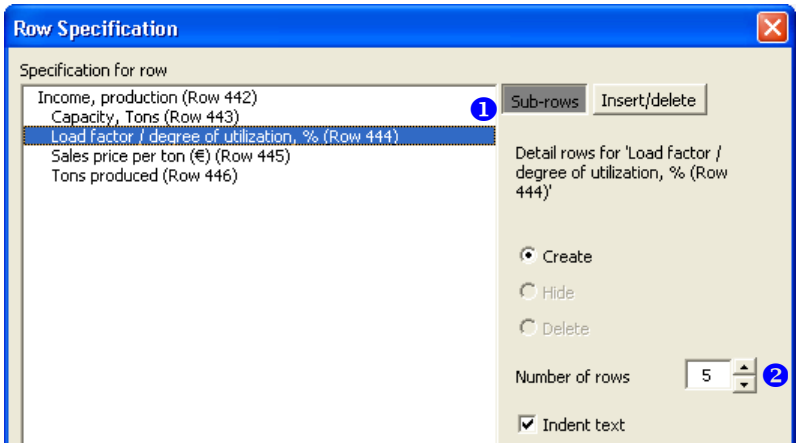
To delete a row specification, click the ≡ button to open the dialog box, choose Delete ❶ and click OK.



The result of the specification rows will be written on the main row. Note that the Delete function will delete the specification rows irreversibly.

3.2.5.3.7 Create detail level specification rows

You can add one sub-level of detail rows for specification rows. Choose the specification row ❶ to which you want to add new detail rows, specify number of rows ❷ to add and click OK.



Detail rows are shown in a different background color and texts are indented by default.

≡	Income, production		5 250	7 000	7 000
+	Capacity, Tons		7 500	10 000	10 000
*	Load factor / degree of utilization, %		70,0 %	70,0 %	70,0 %
+	Target load factor		70,0 %	70,0 %	70,0 %
+					
+					
+					
+					
+	Sales price per ton (€)				
	Tons produced				

3.2.5.3.8 Modify, hide or delete detail level specification rows

To modify detail level specification rows, choose the specification row ❶ with the detail level rows and choose Modify, Hide or Delete ❷.

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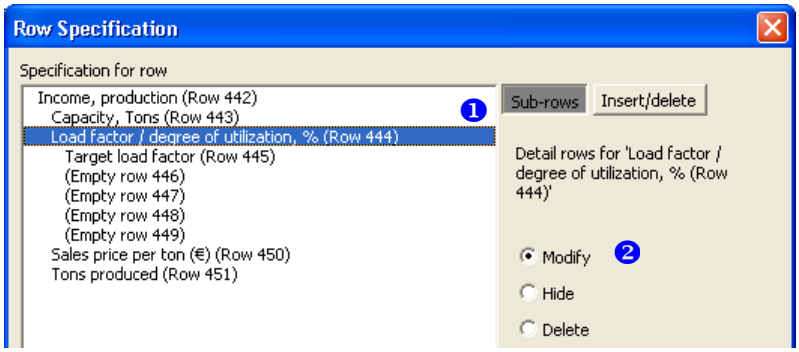


You can create, modify, hide and delete detail rows in the same way as specification rows.

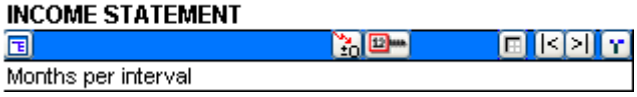
3.2.5.3.9 Residual column and specification rows

Residual column is not included when row specifications are created.

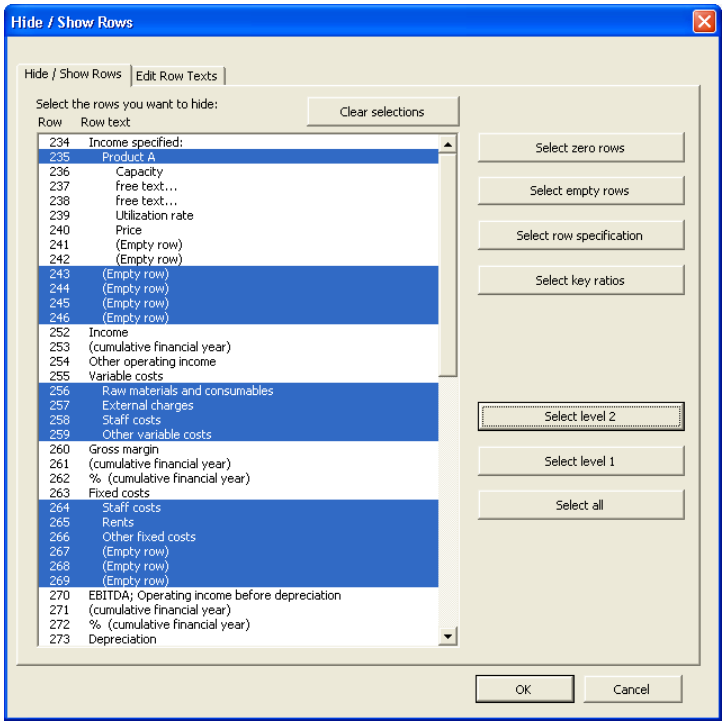
€	12/2005	12/2006	12/2007	12/2008	12/2009	Residual
Months per interval	12	12	12	12	12	(12/2009)
Income specified:						
Main products	78 000	79 950	81 949	83 997	86 097	
+ Product A	35 000	35 875	36 772	37 691	38 633	
+ Product B	27 000	27 675	28 367	29 076	29 803	
+ Product C	16 000	16 400	16 810	17 230	17 661	

Any entries in the residual column should be entered on the main row above the row specifications.

3.2.5.3.10 Hide/show rows



By clicking the button on the left of the blue bar you can select rows to hide.



In this window you can choose which rows you want to hide. Rows marked with blue will be hidden. You can freely select rows by clicking them with mouse or use buttons on the right side in the window. If specification rows are not in use, the “Select row specification” button is hidden. When you open the window the program shows row numbers automatically on the left side in the calculation. This will help you to choose the right rows to hide/ unhide.

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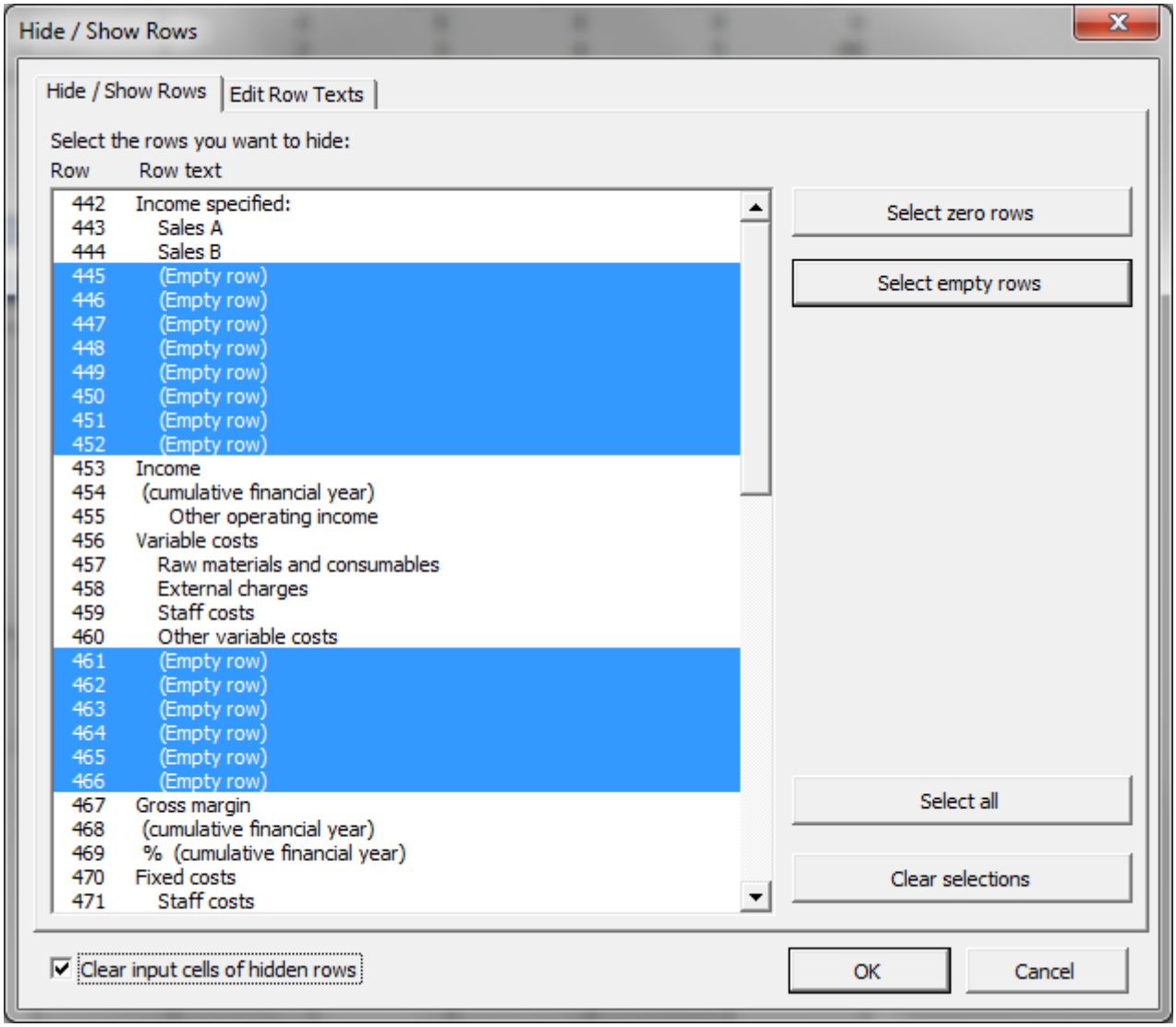
3.2.5.3.11 Clear input cells of hidden rows

When hiding rows in a calculation file, you can choose to clear input cells on the rows to be hidden. This way you can make sure that no numbers or formulas that could impact the result of the calculation will accidently be left on the hidden rows. Text cells will not be cleared.

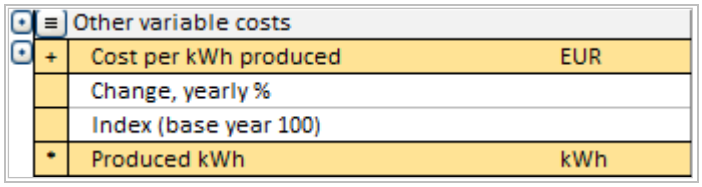
Check “Clear input cells of hidden rows in the “Hide / Show Rows” dialog box to use this function when you are hiding rows.

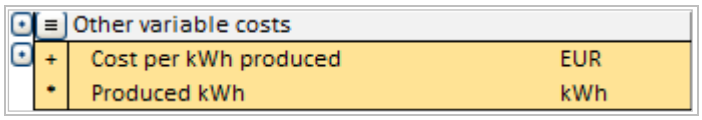


3.2.5.3.12 Flip buttons for sub-rows

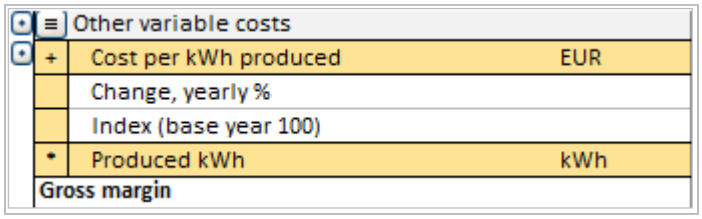
Flip buttons are automatically added for sub-rows, i.e. Specification rows and Change indicator rows. You can toggle (hide/unhide) sub-rows for the row with the Flip button by clicking it.

Flip Change indicators:





Flip Specification rows:



3.2.5.4 Edit row texts

In this form you can change row texts in each language used in the program. (This function is only available in Pro and Enterprise editions).

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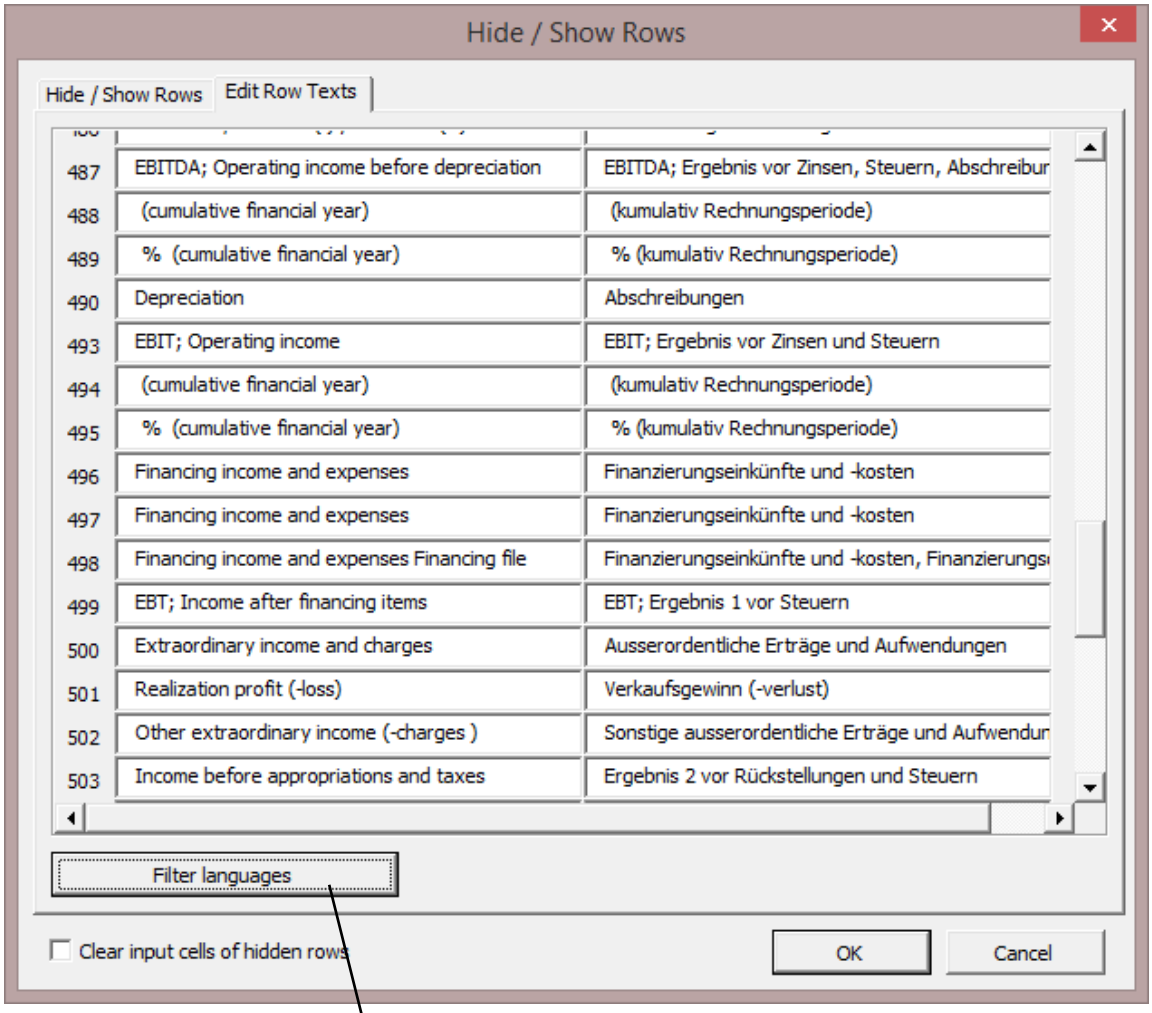
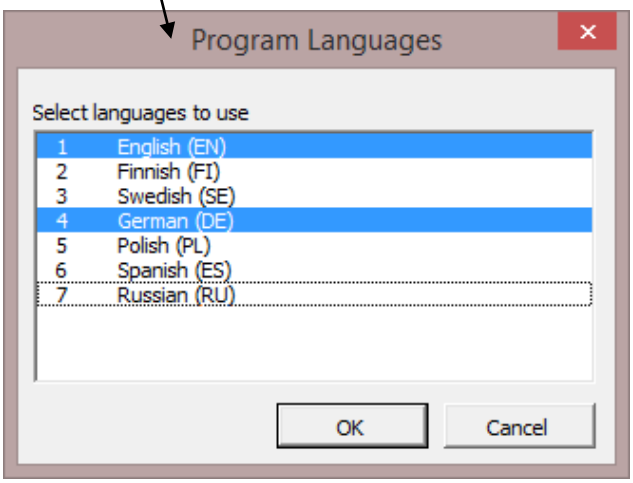

Hide / Show Rows
Hide / Show Rows
Edit Row Texts
487 EBITDA; Operating income before depreciation
EBITDA; Ergebnis vor Zinsen, Steuern, Abschreibur
488 (cumulative financial year)
(kumulativ Rechnungsperiode)
489 % (cumulative financial year)
% (kumulativ Rechnungsperiode)
490 Depreciation
Abschreibungen
493 EBIT; Operating income
EBIT; Ergebnis vor Zinsen und Steuern
494 (cumulative financial year)
(kumulativ Rechnungsperiode)
495 % (cumulative financial year)
% (kumulativ Rechnungsperiode)
496 Financing income and expenses
Finanzierungseinkünfte und -kosten
497 Financing income and expenses
Finanzierungseinkünfte und -kosten
498 Financing income and expenses Financing file
Finanzierungseinkünfte und -kosten, Finanzierungs
499 EBT; Income after financing items
EBT; Ergebnis 1 vor Steuern
500 Extraordinary income and charges
Ausserordentliche Erträge und Aufwendungen
501 Realization profit (-loss)
Verkaufsgewinn (-verlust)
502 Other extraordinary income (-charges)
Sonstige ausserordentliche Erträge und Aufwendur
503 Income before appropriations and taxes
Ergebnis 2 vor Rückstellungen und Steuern
Filter languages
Clear input cells of hidden rows
OK
Cancel

It's also possible to filter out languages not needed. The blue ones stay, the white ones will be hidden:



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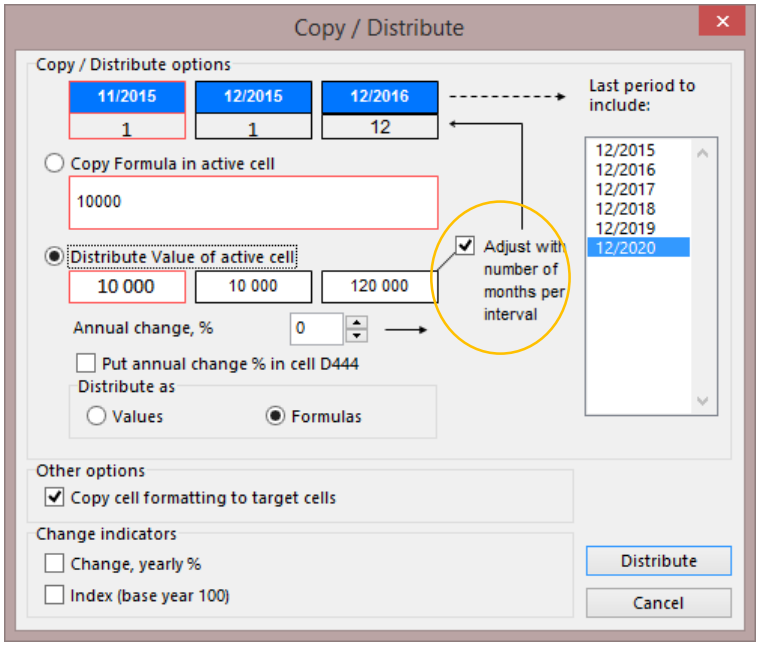
3.2.5.5 Copy / Distribute -function

You can copy the formula or the value from a cell to the following columns using Excel's **Copy** and **Paste** commands. For that purpose, *Invest for Excel* has a useful function, which you can activate by clicking the button. But first select the cell, the contents of which you want to copy to the next columns! We strongly recommend using Invest for Excel's 'Copy / Distribute' function instead of Copy and Paste in Excel. Reasons are, much more security (i.e. less risk) and ease of analysis.

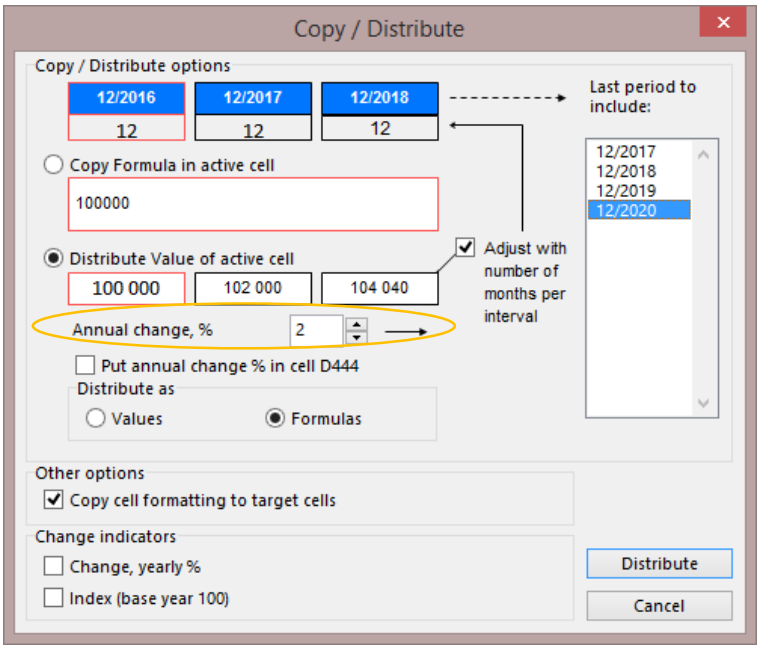
Distribute Value of active cell



If you don't want to copy the value to all columns then select from the list in the box to the right the last period to which the value shall be copied.

Checking **Adjust with number of months per interval**:
Example (see picture at left): The first month's income is 10,000 (11/2015). The next interval ends at financial closing 12/2015, also 1-month long. Therefore, the income/savings for that interval is also 10,000. The third interval lasts an entire year, why the amount should be 120,000. If you check 'Adjust with number of months per interval', it will be so.

If you apply this function to a figure that should not change; that is, it should not be multiplied twelve times when changing from monthly to annual columns (e.g. unit price, margin-%, number of employees), do not check the "Adjust with number of months per interval" (by default it is not checked).



By entering the change as a percentage, you can determine how the values of the following intervals will change, for example how sales prices or sales volume will increase or decrease. In the example to the left, the calculation is divided into annual (12-month) intervals. The calculation can just as well be divided into e.g. monthly or quarterly intervals. The change percentage is given on an annual basis. The program shows the value of the active cell and those of the next two cells.

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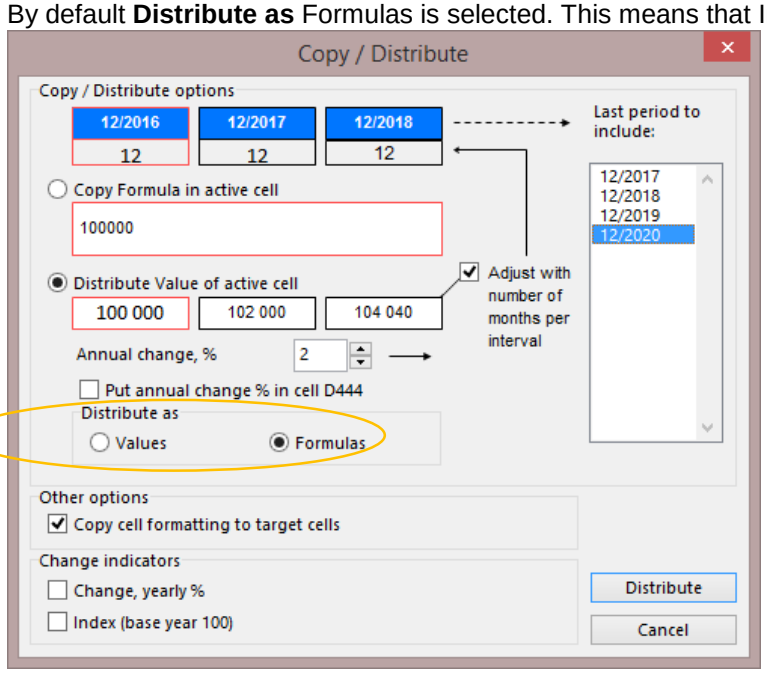
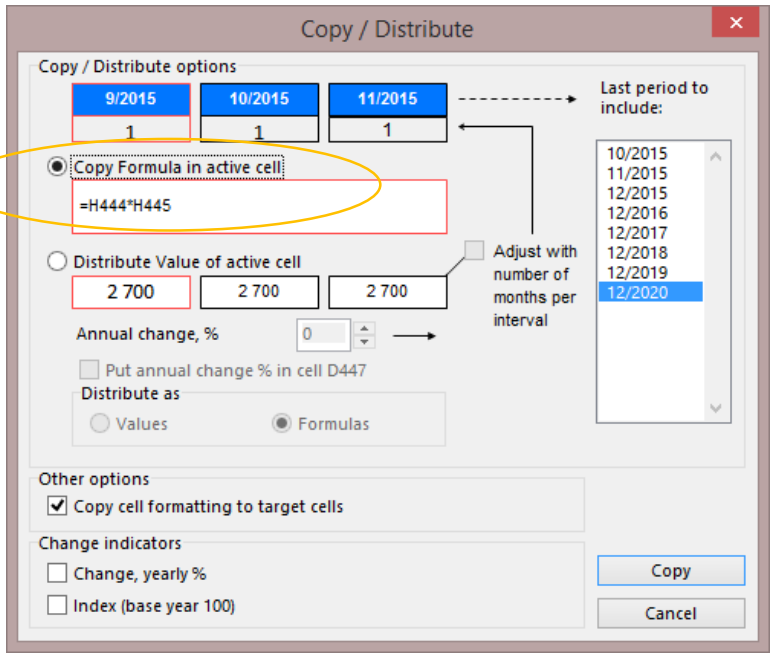
By default **Distribute as** Formulas is selected. This means that Invest for Excel will create formulas in the columns referring to the previous column. This makes simulations a lot easier. In addition, you can distribute the value of active cell as numbers instead of formulas, should the situation call for it. This leads to a static calculation, making simulations more challenging.



Use the default **Distribute Value of active cell** and accept the selection with the **Distribute** button.

Copy Formula in active cell



When you copy a cell containing an Excel formula to adjacent columns, use the **Copy formula in active cell** function and click the **Copy** button. See example to the left.

Other options: Use 'Copy cell formatting to target cells' to copy the cell formatting such as decimals, fonts and percentages.

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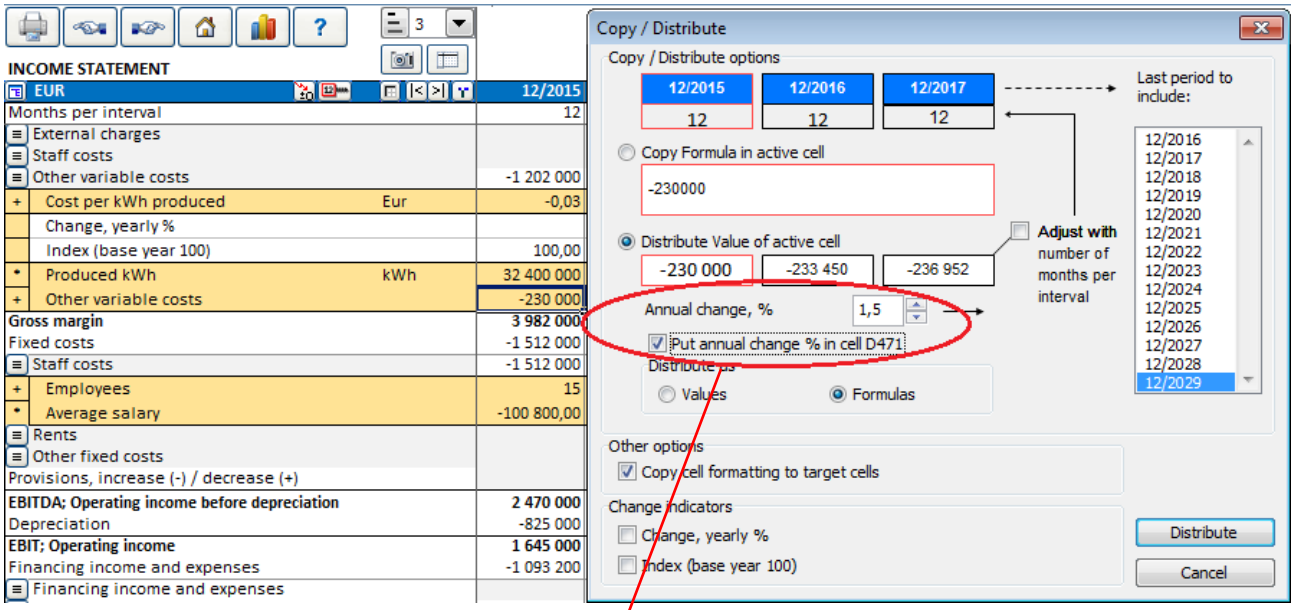
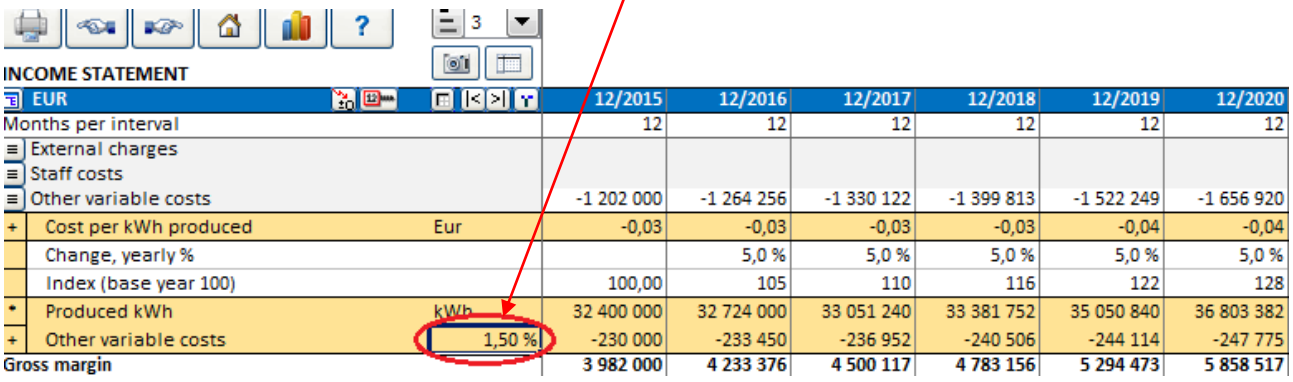
3.2.5.5.1 Annual change % in cell

When distributing the value of a cell, you can choose to put the annual change % in a cell in column D.





The annual change of the cell can easily be altered from this cell.

This feature is not available for all rows.

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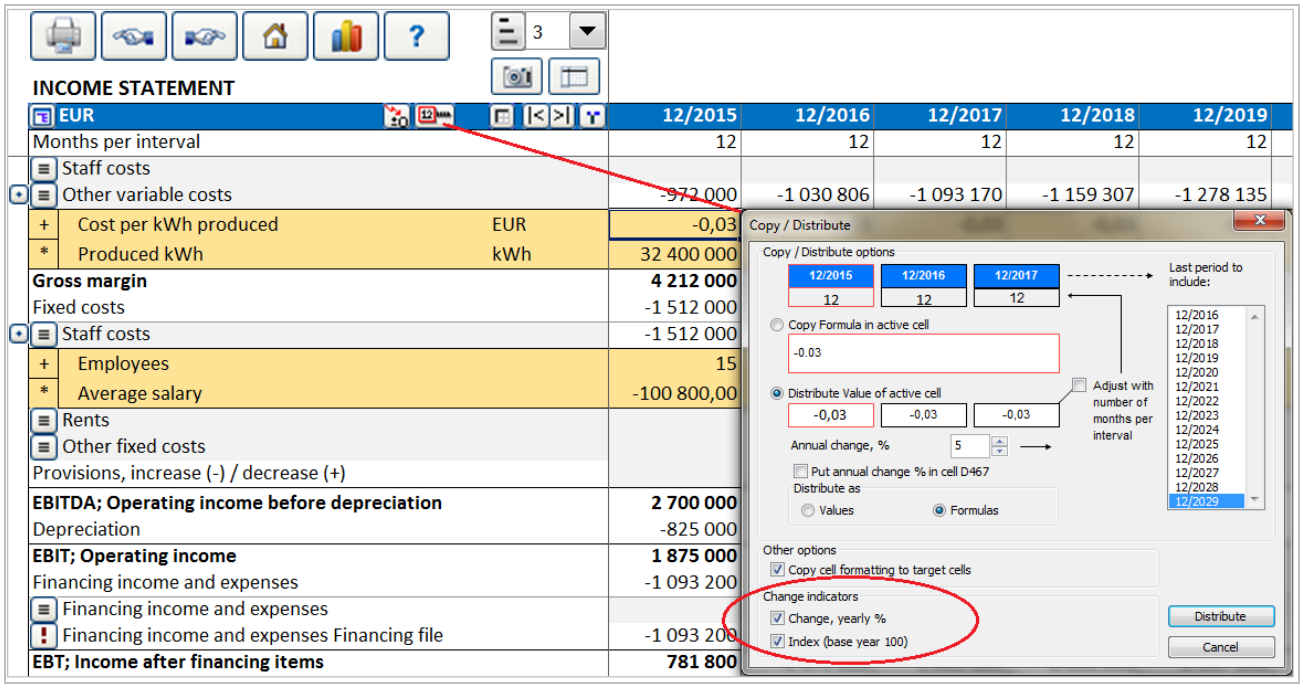
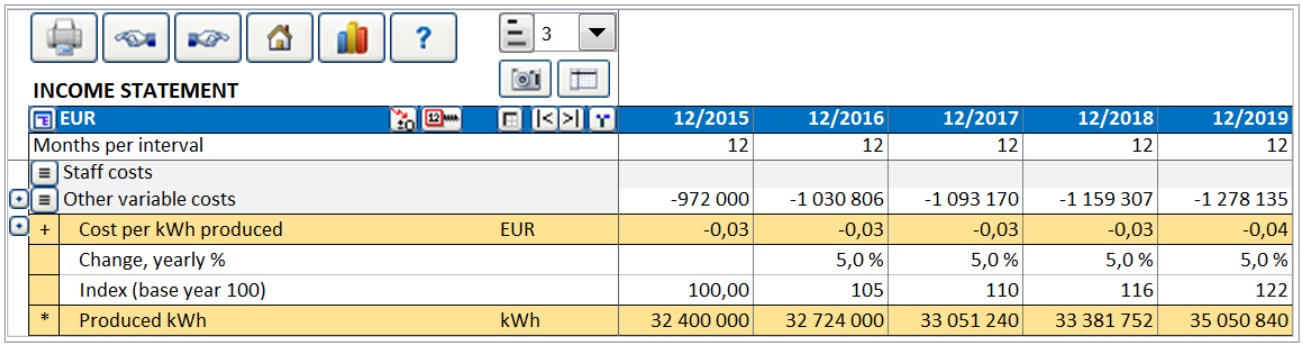
3.2.5.5.2 Change indicators

In the Distribution dialog box you can choose to include Change indicators under the selected row.



Chosen Change indicators are written to the sheet:



EUR		12/2015	12/2016	12/2017	12/2018	12/2019
Months per interval		12	12	12	12	12
Staff costs						
Other variable costs		-972 000	-1 030 806	-1 093 170	-1 159 307	-1 278 135
Cost per kWh produced	EUR	-0,03	-0,03	-0,03	-0,03	-0,04
Change, yearly %			5,0 %	5,0 %	5,0 %	5,0 %
Index (base year 100)		100,00	105	110	116	122
Produced kWh	kWh	32 400 000	32 724 000	33 051 240	33 381 752	35 050 840

Change, yearly % shows the change per year of the parent row. **Index (base year 100)** shows the cumulative change as an index, where the starting year is 100. Notice that these indicators are calculated for your information only, they are not input cells. Use 'Copy / Distribute' –function to edit change-percentage.

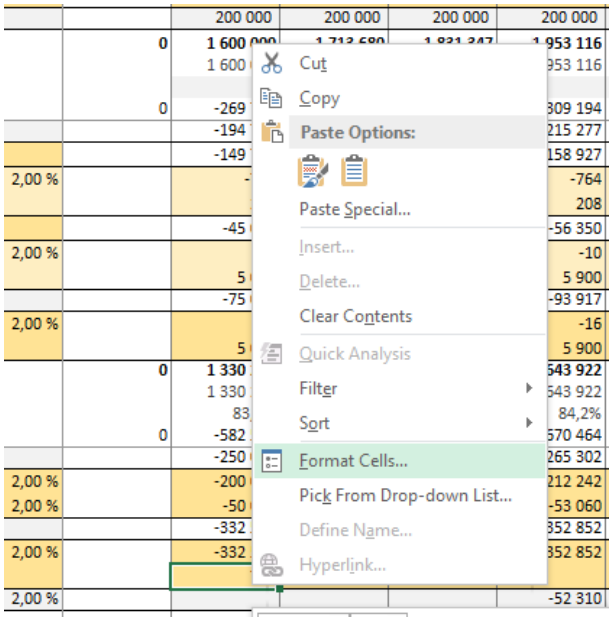
After some practise, you will find the benefits of this "Copy/ Distribute" -function, compared to the normal Copy function. One of the benefits is the linking of formulas between cells, which is a precondition for the Break-even function. If you change the figure in the first column, and a formula covers it and the adjacent columns, the figures in the other columns will also change.

Use these |< >| buttons to move between the first and the last column of the table.

Cell Break-even button: Refer to the Cell Break-even chapter 5.9, later in this manual for more information.

3.2.5.6 Formatting cells

Formatting calculation file cells is allowed using Microsoft Excel's menus and shortcuts.



3.2.5.7 Provisions

Changes in provisions can be entered in the Income statement before EBITDA. Changes in **provisions are non-cash** items and will affect free cash flow only through changes in income tax.

INCOME STATEMENT

1000 €	12/2010	12/2011	12/2012	12/2013	12/2014
Months per interval	12	12	12	12	12
Income specified:					
Sales	4 900	4 974	5 048	5 124	5 201
Income	**4 900**	**4 974**	**5 048**	**5 124**	**5 201**
Other operating income					
Variable costs	-588	-597	-606	-615	-624
Raw materials and consumables	-588	-597	-606	-615	-624
External charges					
Staff costs					
Other variable costs					
Gross margin	**4 312**	**4 377**	**4 442**	**4 509**	**4 577**
Fixed costs	-1 750	-1 768	-1 785	-1 803	-1 821
Staff costs					
Rents					
Other fixed costs	-1 750	-1 768	-1 785	-1 803	-1 821
Provisions, increase (-) / decrease (+)	-300	-200			500
EBITDA; Operating income before depreciation	**2 262**	**2 409**	**2 657**	**2 706**	**3 256**

Accumulated provisions are shown in the Balance sheet on the liabilities side.

Appropriations	0	0	0	0	0
Provisions	300	500	500	500	0
Liabilities					
Long-term liabilities	0	0	0	0	0
Short-term liabilities	0	0	0	0	0
Total liabilities	0	0	0	0	0
SHAREHOLDERS' EQUITY AND LIABILITIES	**1 883**	**3 770**	**5 630**	**7 524**	**9 303**

3.2.5.8 Deferred taxes

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Deferred taxes can be entered in the Income statement after ordinary Income taxes. Deferred taxes do not affect Free cash flow.

INCOME STATEMENT

1000 €	12/2010	12/2011	12/2012	12/2013	12/2014
Months per interval	12	12	12	12	12
Income specified:					
Sales	4 900	4 974	5 048	5 124	5 201
Income	**4 900**	**4 974**	**5 048**	**5 124**	**5 201**
Other operating income					
Variable costs	-588	-597	-606	-615	-624
Raw materials and consumables	-588	-597	-606	-615	-624
Gross margin	**4 312**	**4 377**	**4 442**	**4 509**	**4 577**
Fixed costs	-1 750	-1 768	-1 785	-1 803	-1 821
Other fixed costs	-1 750	-1 768	-1 785	-1 803	-1 821
Provisions, increase (-) / decrease (+)	-300	-200			500
EBITDA; Operating income before depreciation	**2 262**	**2 409**	**2 657**	**2 706**	**3 256**
Depreciation	0	0	0	0	0
EBIT; Operating income	**2 262**	**2 409**	**2 657**	**2 706**	**3 256**
Financing income and expenses					
EBT; Income after financing items	**2 262**	**2 409**	**2 657**	**2 706**	**3 256**
Extraordinary income and charges					
Income before appropriations and taxes	**2 262**	**2 409**	**2 657**	**2 706**	**3 256**
Change in appropriations					
Appropriations, increase (-) / decrease (+)					
Income tax	-679	-723	-797	-812	-977
Deferred tax	-200			200	
Net income for the period	**1 383**	**1 686**	**1 860**	**2 094**	**2 279**

Accumulated Deferred taxes are shown under Long-term debt in the Balance sheet.

Liabilities					
Long-term liabilities	200	200	200	0	0
Interest-bearing long-term debt	0	0	0	0	0
Interest-free long-term debt	0	0	0	0	0
Deferred tax liabilities	200	200	200	0	0
Short-term liabilities	0	0	0	0	0
Total liabilities	200	200	200	0	0
SHAREHOLDERS' EQUITY AND LIABILITIES	**1 883**	**3 770**	**5 630**	**7 524**	**9 303**

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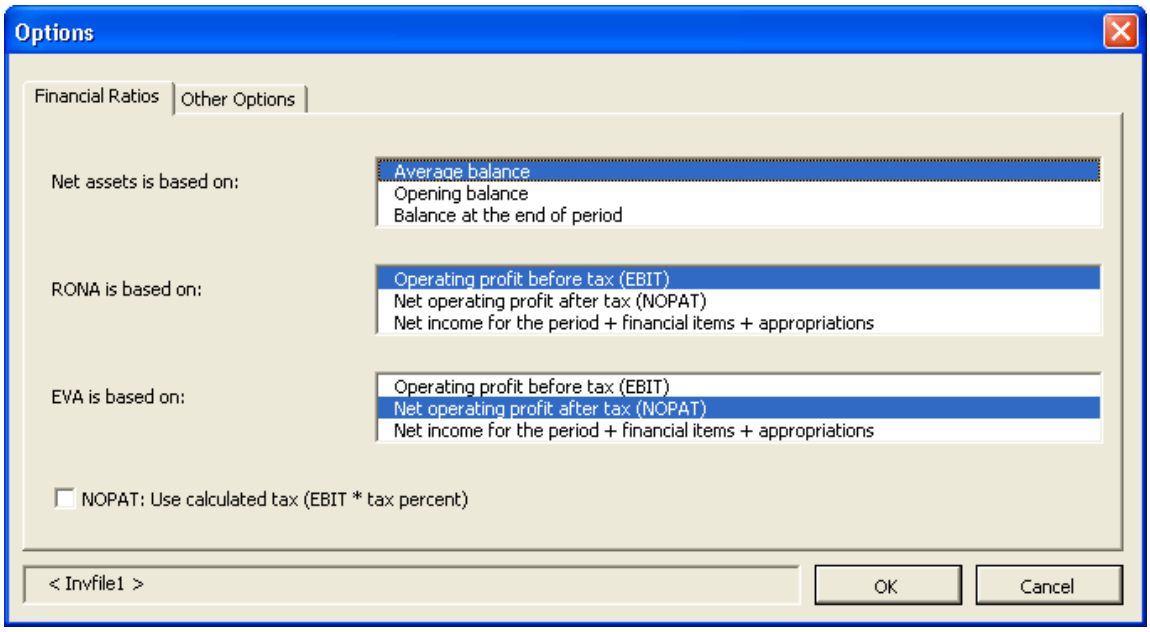
3.2.5.9 Financial ratios

Return on net assets (RONA), % ...		**39,6 %**	**11,6 %**
Economic Value Added (EVA)		**1 206**	**438**
Net assets, average		3 481	6 626
Capital charge on net assets		174	331

When you click the ... button at the 'Return on Net Assets (RONA)' row you can select the calculation basis of the RONA and EVA indicators:


Options
Financial Ratios
Other Options
Net assets is based on:
Average balance
Opening balance
Balance at the end of period
RONA is based on:
Operating profit before tax (EBIT)
Net operating profit after tax (NOPAT)
Net income for the period + financial items + appropriations
EVA is based on:
Operating profit before tax (EBIT)
Net operating profit after tax (NOPAT)
Net income for the period + financial items + appropriations
NOPAT: Use calculated tax (EBIT * tax percent)
< Invfile1 >
OK
Cancel

3.2.5.10 Return On Net Assets (RONA), %.

Definition:

$$\text{RONA} = \frac{\text{Operating income before tax (EBIT) } \mathbf{or} \text{ after tax (NOPAT)}}{\text{Net assets } *}$$

* "Average", "Opening balance" or "Balance at the end of period".

That is, the return on the invested capital. Concerning the net capital of this investment only, the figure might not be comparable with the return on the net capital of the whole company.

Where:

NOPAT (Net Operating Profit After Tax) = EBIT – Tax. Note that tax can be income tax in the Income statement or a calculated tax EBIT * tax percent, if the following option is selected:

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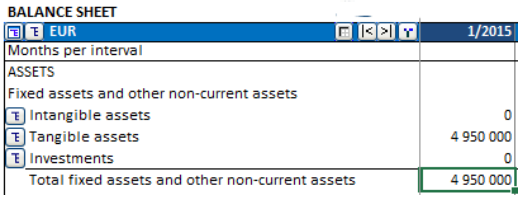
Net Assets = Total fixed assets and other non-current assets + Net Working Capital.

Where Total fixed assets and other non-current assets are the sum of assets in balance sheet:



BALANCE SHEET

EUR	1/2015
Months per interval	
ASSETS	
Fixed assets and other non-current assets	
Intangible assets	0
Tangible assets	4 950 000
Investments	0
Total fixed assets and other non-current assets	4 950 000

Net Working Capital is the sum of the Working capital statement (last row).

Net assets – definitions for period t:

$$\text{Net Assets Average}_{(t)} = \frac{\text{Net Assets}_{(t-1)} + \text{Net Assets}_{(t)}}{2}$$

$$\text{Net Assets (OpeningBalance)}_{(t)} = \text{Net Assets}_{(t-1)}$$
$$\text{Net Assets (ClosingBalance)}_{(t)} = \text{Net Assets}_{(t)}$$

3.2.5.10.1 Economic Value Added (EVA)

EVA can be defined as the net operating profit that a company earns above its cost of capital. EVA is a trademark of Stern Stewart & Co.

General EVA formula:

EVA = NOPAT - COST OF CAPITAL x CAPITAL INVESTED

where

NOPAT (Net Operating Profit After Tax) = EBIT – Tax.
Note that tax can be income tax in the Income statement or a calculated tax EBIT * tax percent, if the following option is selected:

COST OF CAPITAL = Weighted Average Cost of Capital (WACC) = discount rate

CAPITAL INVESTED = non-interest bearing capital in the beginning of year

Implementation in Invest for Excel:

EVA = (operating income [EBIT] - tax) - (discount factor / 100) * (all assets + working capital) **

** Assets and working capital: average, opening balance or at the end of the period.

Operating profit = EBIT; Operating income

Net Operating profit after tax (NOPAT) = EBIT – Income tax for the period (cumulative financial year) or EBIT – calculated tax [EBIT *(1-tax %)], if the following option is selected:

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3.2.6 Working capital

Use this table to calculate the amount of working capital required for your project/ business:

WORKING CAPITAL

EUR	1/2015	12/2015	12/2016	12/2017
Months per interval		12	12	12
Short-term assets				
Average term of payment, days	30	30	30	30
Accounts receivable	0	133 333	142 807	152 612
Adjusted balance				
Increase (-) / decrease (+)	0	-133 333	-9 473	-9 806
Other receivables	0	0	0	0
Change in other receivables, increase (-)/decrease (+)				
Minimum cash	0	0	0	0
Minimum cash, increase (-)/decrease (+)				
Short-term assets, increase (-)/decrease (+)	0	-133 333	-9 473	-9 806
Inventories				
1 Turnover period, days	14	14	14	14
Fuel	0	7 574	7 833	8 098
Adjusted balance				
Increase (-) / decrease (+)	0	-7 574	-259	-266
2 Turnover period, days	60	60	60	60
Spare parts and oils	0	55 417	56 525	57 656
Adjusted inventories				
Increase (-) / decrease (+)	0	-55 417	-1 108	-1 131
Inventories increase (-)/decrease (+)	0	-62 991	-1 367	-1 396
Current liabilities				
1 Average term of payment, days	30	30	30	30
Fuel	0	16 230	16 784	17 354
Adjusted balance				
Increase (+) / decrease (-)	0	16 230	554	570
2 Average term of payment, days	30	30	30	30
Spare parts and oils	0	27 708	28 263	28 828
Adjusted balance				
Increase (+) / decrease (-)	0	27 708	554	565
Other current liabilities	0	0	0	0
Change in other current liabilities, increase (+)/decr. (-)				
Current liabilities increase (+)/decrease (-)	0	43 938	1 108	1 135
Change in working capital	**0**	**-152 386**	**-9 732**	**-10 067**
Net working capital	0	152 386	162 118	172 185

3.2.6.1 Detailed definition of Working Capital

Each of the main Working capital groups (Short-term assets, Inventories and Current liabilities) can be specified in up to 5 sub-groups.

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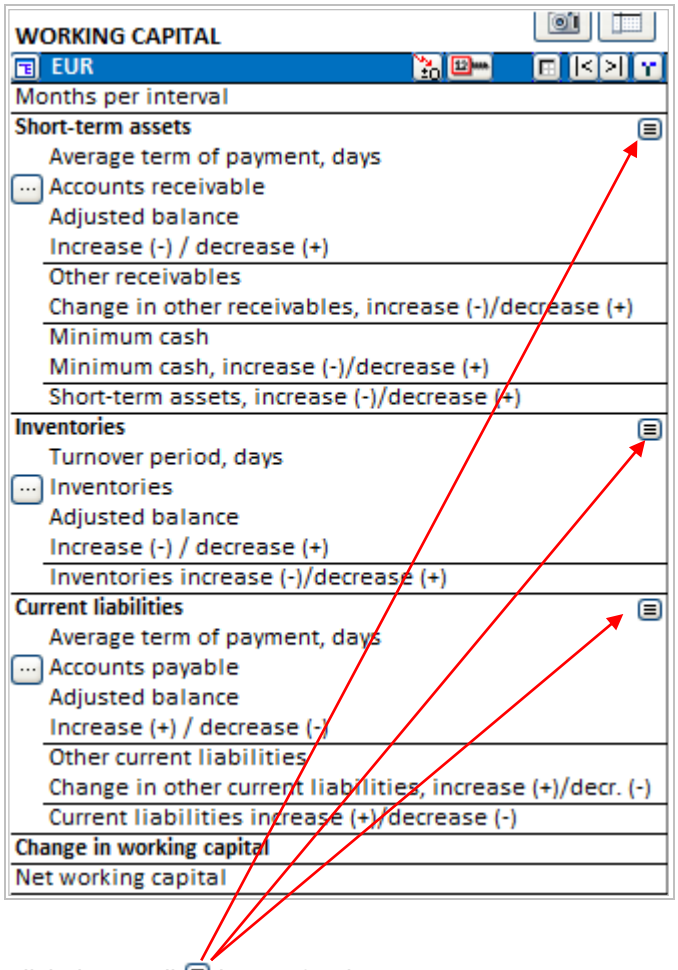
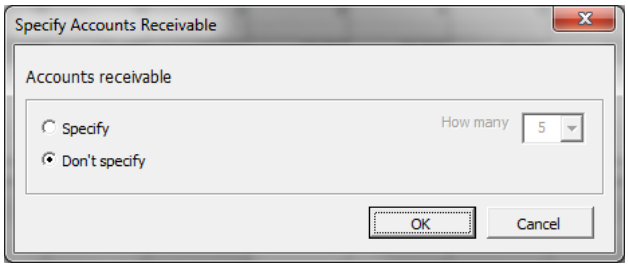
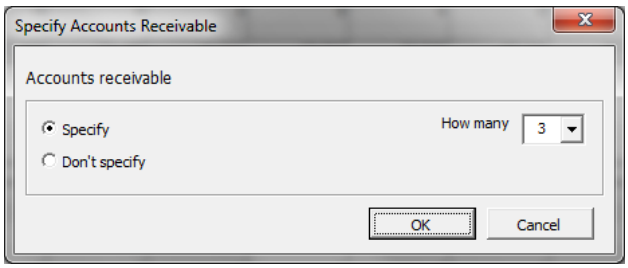


Click the small button for the asset group you want to specify in more detail. The Specify dialog box is shown for the asset group.



Choose Specify and choose how many subgroups (2-5) you want.



Click OK and the working capital table will give you the chosen number of subgroups.

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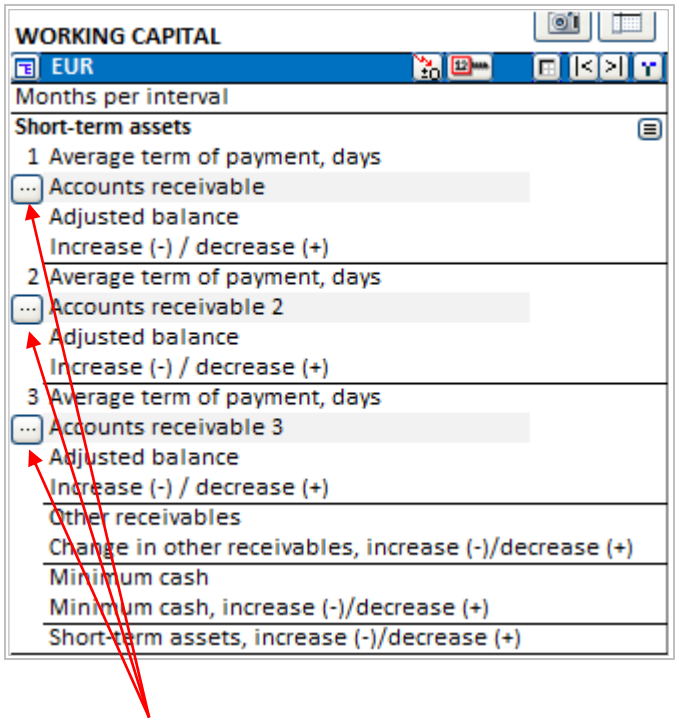
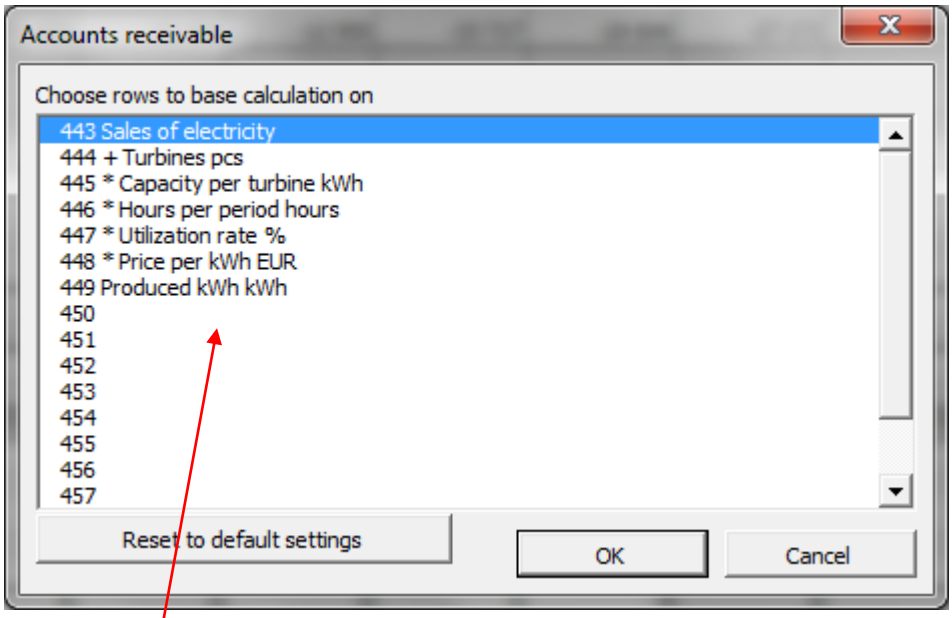


For each working capital subgroup you can define row(s) that the calculation is based on. Click the ... button for the subgroup.



Choose row(s) to base the calculation on from the list of rows. In the table you can enter average number of days that you want to use as the term of payment.

EUR	12/2015	12/2016	12/2017
Months per interval	12	12	12
Short-term assets			
1 Average term of payment, days	14	14	14
Accounts receivable	201 600	213 797	226 732
Adjusted balance			
Increase (-) / decrease (+)	-201 600	-12 197	-12 935

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3.2.6.2 Short term assets

Current receivables. How much short term assets an investment, project or business ties up depends mainly on **Accounts receivable**. There are two ways to enter the accounts receivable:

1. Enter the average term of payment for accounts receivable in days (i.e., the average number of days from delivery until payment), and the program calculates the average amount of accounts receivable per interval, based on sales (**Income** row in Income statement) and rotation. Invest for Excel liquidates the accounts receivables automatically at the end of the investment term in the last column, otherwise they would remain outstanding (credit loss). To override this feature type in a value on the row for "Adjusted balance" in the "Residual" –column.

2. Enter the estimated average accounts receivable per period on the line Adjusted balance. This is an alternative to entering the information on rotation (term of payment). NOTE! If you enter values in Adjusted accounts receivables, then these values overrule the values calculated from entered days. Although 'Average term of payment, days' is visible in calculation, only the 'Adjusted balance' values are taken into account.

Explanations of rows used in Working Capital - Short-term assets table:

Receivables average term of payment, days – enter number of days per period
Accounts receivable – calculated according to the formula:

Accounts receivables are basically calculated according to the formula:

$$Accounts\ receivable = \text{term of payment, days} * \frac{\text{sum of selected rows for the current period}}{\text{Number of days in period}}$$

If the term of payment is longer than the number of days per column (e.g. 45 days in a monthly calculation) two things happen:
1. The balance increases only with 30 days income (not 45)
2. The next period(s) will be affected cumulatively

Adjusted accounts receivable – in this row you can enter values or formulas. The values will overrule the Accounts receivable values per period

Change in accounts receivable$_{(t)}$ = Accounts receivable$_{(t-1)}$ – Accounts receivable$_{(t)}$

Or – if the Adjusted accounts receivable where used, then:

Change in accounts receivable = Adjusted Accounts receivable$_{(t-1)}$ – Adjusted Accounts receivable$_{(t)}$

Other Short term assets supported by *Invest for Excel* are:

1. **Minimum cash reserves**: Enter here the amount of non-interest bearing cash reserves needed for implementing this investment.
2. **Other receivables:** Other than accounts receivable and cash buffer, e.g. advances paid, prepaid expenses and accrued income. These kinds of items are typically not necessary for investment calculations.

The total of short-term assets is:

Short term assets, increase (-)/ decrease (+) = Change in accounts receivable + Change in other receivables + Minimum cash increase (-)/ decrease (+)

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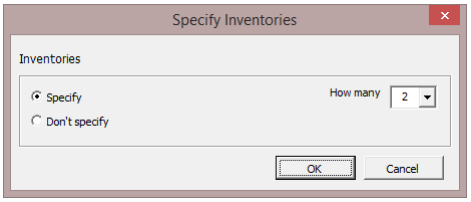
3.2.6.3 Inventories

Inventories tie up capital and have an impact on the investment's profitability. Enter the rotation time of inventory in days or the inventory balance (goods in stock) in the Working Capital table. Inventories comprise (by theory):

Raw materials and consumables (materials and supplies)
Work in progress, and
Finished goods.

If you select 'Turnover period, days', the calculation of the value of inventory will as default be based on the row "Variable costs" in the Income statement. For more detailed inventory management, click the ☰-button for specification of inventories.



If you give both 'Turnover period, days' and 'Adjusted balance', the program will only consider the latter.

The true residual of the inventory can be entered into the last column if a value different from that calculated by the application is desired.

Inventories are basically calculated according to the formula:

$$Inventory = \text{turnover period, days} * \frac{Sum\ of\ amounts\ in\ the\ selected\ rows \text{ for the current period}}{\text{Number of days in period}}$$

If the turnover period is longer than the number of days per column (e.g. 45 days in a monthly calculation) two things happen:

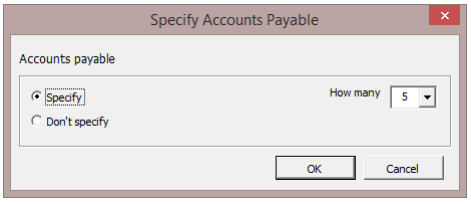
1. The balance increases only with 30 days costs (not 45)
2. The next period(s) will be affected additionally

3.2.6.4 Current liabilities

Accounts Payable. How much less working capital is needed, thanks to payment term to suppliers?

There are two ways to enter the accounts payable:

1. Enter the average term of payment for accounts payable in days (i.e., the average number of days from receiving the goods until payment). The program calculates the average amount of accounts payable per interval, in default based on the 2 first rows of Variable costs: "Raw materials and consumables" and ''External charges'' in the Income statement. For more detailed liabilities management, click the ☰-button for specification of current liabilities.



2. Enter the estimated average accounts payable per period on the line Adjusted balance. This is an alternative to entering the information on rotation. The values in 'Adjusted balance' overrule the values of term of payment for accounts payable.

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Invest for Excel liquidates the accounts payable automatically at the end of the investment term in the last column, otherwise they would remain outstanding (unpaid). To overrule this feature, type in a value on the row for 'Adjusted balance' in the "Residual" –column.

Other current liabilities. Besides accounts payable there may be other current liabilities, like e.g. advance payments from customers, tax liabilities, accrued expenses and prepaid revenues. These kinds of items are typically not necessary for investment calculations.

Current liabilities are basically calculated according to the formula:

$$Current\ liability = \text{term of payment, days} * \frac{Sum\ of\ amounts\ in\ the\ selected\ rows\ for\ the\ current\ period}{\text{Number of days in period}}$$

If the term of payment, days is longer than the number of days per column (e.g. 45 days in a monthly calculation) two things happen:

1. The balance increases only with 30 days costs (not 45)
2. The next period(s) will be affected additionally

Adjusted balance – in this row you can enter values or formulas. The Adjusted balance will overrule the term of payment, days.

The last row of the table, Net working capital, shows the netted working capital tied up in the project/ business. The larger the inventories are, the more capital they tie up. The longer the payment term given to customers, the more capital is out of the cash reserves. The terms of payment concerning accounts payable liabilities work in an opposite way.

Change in working capital is Short-term assets increase (-)/ decrease (+), plus Inventories increase(-)/ decrease (+), plus Current liabilities increase (+)/ decrease (-)

Net working capital = Working capital$_{(t-1)}$ - Change in working capital$_{(t)}$

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3.2.7 Cash Flow Statement

The cash flow calculation is a report giving a general view of the distribution of cash flows.

CASH FLOW STATEMENT

1000 €	1/2006	12/2006	12/2007	12/2008
Months per interval		12	12	12
Cash flow from operations				
Income	0	3 450	3 502	3 554
Variable costs	0	-856	-860	-865
Fixed costs	0	-1 250	-1 263	-1 275
Extraordinary income & expenses	0	0	0	0
Income tax	0	-284	-294	-303
Change in working capital	0	-308	0	0
Cash flow from operations	**0**	**751**	**1 085**	**1 111**
Asset investments and realizations	-1 250	0	0	0
Free cash flow (FCF)	**-1 250**	**751**	**1 085**	**1 111**
Discounted free cash flow (DFCF)	-1 250	672	869	796
Cumulative discounted free cash flow	-1 250	-578	291	1 088
Information				
Financial cash flow				
Financial income and expenses	0	0	0	0
Correction of income tax for financial items	0	0	0	0
Long-term debt, increase (+) / decrease (-)	0	0	0	0
Equity, increase (+) / dividends (-)	0	0	0	0
Changes in short-term borrowings				
Total cash flow	**-1 250**	**751**	**1 085**	**1 111**
Cumulative total cash flow	-1 250	-499	586	1 698

While calculating the overall profitability of an investment, (NPV, IRR, MIRR and Payback), *Invest for Excel* discounts the Free cash flow of the investment. Discounted free cash flow , means the current free cash flow discounted to the Calculation point (in time, usually the beginning). The alternative cost of capital has been taken into account (discount factor). ”Cumulative discounted free cash flow” = the realised total ‘Discounted free cash flow’. **Hint:** The investment has paid itself back when the “Cumulative discounted free cash flow” turns positive.

If you want to analyse the cash flows to be expected during each period or cumulatively, not forgetting cash flows from financing, enter the increase and decrease of debts, increase of equity and possible dividend payments. Input the cost of debt in the Income statement, it will show here in Cash flow statement in the row Financing income and expenses. These figures have no bearing on the overall profitability of the investment, but by taking them into account you will see here the effect on total cash flow.

If you have the *Enterprise* –edition of *Invest for Excel* you can:

1) Bring the cash flow from the investment calculation to Financing –module.
2) Plan project financing in Financing module, and
3) Update your calculation file Cash flow calculation with changes in debt.
4) Update your Calculation file Income statement with the cost of debt.
5) See profitability indicators based on Free Cash Flow to Equity (FCFE). By taking the debt leverage into account, the investor’s true return is shown.

Refer to chapter 13 for more information on using the financing module.

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3.2.7.1 Correction of income tax for financial items

"Correction of income tax for financial items" row is used when tax effect of financial items are not included in free cash flow, but are taken into account in the profit statement. Any difference between profit statement income tax and cash flow statement income tax is shown here and included in total cash flow.

INCOME STATEMENT

EUR	1/2015	12/2015	12/2016	12/2017	12/2018
Turnover	**0**	**1 600 000**	**1 713 680**	**1 831 347**	**1 953 116**
Variable costs	0	-269 760	-282 499	-295 640	-309 194
Gross margin	**0**	**1 330 240**	**1 431 181**	**1 535 707**	**1 643 922**
Fixed costs	0	-582 500	-594 150	-606 033	-670 464
EBITDA	**0**	**747 740**	**837 031**	**929 674**	**973 458**
Depreciation	0	-518 750	-518 750	-495 000	-495 000
EBIT; Operating income	**0**	**228 990**	**318 281**	**434 674**	**478 458**
Financing income and expenses	0	-120 276	-180 415	-146 050	-111 685
EBT; Income after financing items	**0**	**108 714**	**137 866**	**288 624**	**366 773**
Income tax	0	-32 614	-41 360	-186 431	-110 032
Net income for the period	**0**	**76 100**	**96 506**	**435 006**	**256 741**

CASH FLOW STATEMENT

EUR	1/2015	12/2015	12/2016	12/2017	12/2018
Months per interval		12	12	12	12
Cash flow from operations					
Income	0	1 600 000	1 713 680	1 831 347	1 953 116
Variable costs	0	-269 760	-282 499	-295 640	-309 194
Fixed costs	0	-582 500	-594 150	-606 033	-670 464
Extraordinary income & expenses	0	0	0	0	0
Income tax (adjusted)	0	-68 697	-95 484	-230 246	-143 538
Change in working capital	0	-152 386	-9 732	-10 067	-10 411
Cash flow from operations	**0**	**526 657**	**731 815**	**689 361**	**819 509**
Asset investments and realizations	-4 950 000	0	0	600 000	0
Free cash flow to firm (FCFF)	**-4 950 000**	**526 657**	**731 815**	**1 289 361**	**819 509**
Discounted free cash flow to firm (DFCFF)	-4 950 000	478 084	603 050	964 501	556 491
Cumulative discounted free cash flow to firm	-4 950 000	-4 471 916	-3 868 866	-2 904 365	-2 347 874
Information					
Financial cash flow					
Financial income and expenses	0	-120 276	-180 415	-146 050	-111 685
Correction of income tax for financial items	0	36 083	54 124	43 815	33 506
Long-term debt, increase (+) / decrease (-)	3 800 000	-316 667	-633 333	-633 333	-633 333
Changes in short-term borrowings					
Free cash flow to equity (FCFE)	**-1 150 000**	**125 797**	**-27 809**	**553 793**	**107 996**
Discounted free cash flow to equity (DFCFE)	-1 150 000	104 831	-19 312	320 482	52 082
Cumulative discounted free cash flow to equity	-1 150 000	-1 045 169	-1 064 481	-743 999	-691 917
Equity, increase (+) / decrease (-)	1 187 500	0	0	0	0
Total cash flow	**37 500**	**125 797**	**-27 809**	**553 793**	**107 996**
Cumulative total cash flow	37 500	163 297	135 488	689 281	797 278

In the Enterprise edition the 'Free cash flow to equity' can be added for profitability analysis from owner's point of view. See chapter 4.1.3. Profitability calculation based on 'Free cash flow to equity (FCFE)'.

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3.2.8 Balance sheet (Pro and Enterprise editions)

BALANCE SHEET

EUR	1/2015	12/2015	12/2016	12/2017	12/2018
Months per interval		12	12	12	12
ASSETS					
Fixed assets and other non-current assets					
Intangible assets	0	0	0	0	0
Tangible assets	5 264 688	4 745 938	4 227 188	3 465 000	2 970 000
Machinery and equipment	4 950 000	4 455 000	3 960 000	3 465 000	2 970 000
Buildings and structures	314 688	290 938	267 188	0	0
Land and water	0	0	0	0	0
Prepayments and construction in progress	0	0	0	0	0
Other tangible assets	0	0	0	0	0
Investments	0	0	0	0	0
Total fixed assets and other non-current assets	5 264 688	4 745 938	4 227 188	3 465 000	2 970 000
Current Assets					
Inventories and work in progress	0	62 991	64 358	65 754	67 180
Accounts receivable	0	133 333	142 807	152 612	162 760
Other receivables	0	0	0	0	0
Bank and cash	37 500	163 297	135 488	689 281	797 278
Total Current Assets	37 500	359 621	342 653	907 648	1 027 218
ASSETS	**5 302 188**	**5 105 559**	**4 569 840**	**4 372 648**	**3 997 218**
SHAREHOLDERS' EQUITY AND LIABILITIES					
Shareholders' equity					
Share capital	1 187 500	1 187 500	1 187 500	1 187 500	1 187 500
Share issue premium	0	0	0	0	0
Other restricted equity	0	0	0	0	0
Retained earnings	0	0	76 100	172 606	607 612
Profit (loss) for the period	0	76 100	96 506	435 006	256 741
Total shareholders' equity	1 187 500	1 263 600	1 360 106	1 795 112	2 051 853
Appropriations	0	0	0	0	0
Provisions	0	0	0	0	0
Minority interest	0	0	0	0	0
Liabilities					
Long-term liabilities	3 800 000	2 850 000	2 216 667	1 583 333	950 000
Short-term liabilities	0	649 563	650 117	650 687	651 273
Total liabilities	3 800 000	3 499 563	2 866 784	2 234 021	1 601 273
SHAREHOLDERS' EQUITY AND LIABILITIES	**4 987 500**	**4 763 163**	**4 226 890**	**4 029 132**	**3 653 126**

In investment calculations, the balance sheet is mainly a supplementary report. When you are calculating a corporate acquisition or want an investment calculation to take your existing assets into account, the balance sheet is also an input table. The balance sheet is described in more detail in Chapter 9 of this User Manual.

The following is a brief description of how to use the balance sheet as a report when calculating a new investment:

When you were entering the investments (in the “Investments” –screen), you selected the type of fixed assets for the investment. In the **Assets** section of the balance sheet, under the heading **Fixed assets and other non-current assets,** you can see the book value of assets divided into intangible and tangible assets, and investments.

Current assets are divided into inventories and receivables based on the data you have entered in the **Working capital** calculation.

As the cash flow is usually negative at the beginning of the investment term, the item **Bank and cash** in the balance sheet is also negative. If financing of the investment was taken into account, cash and bank would of course be positive. When evaluating profitability of an investment, it’s perfectly normal,

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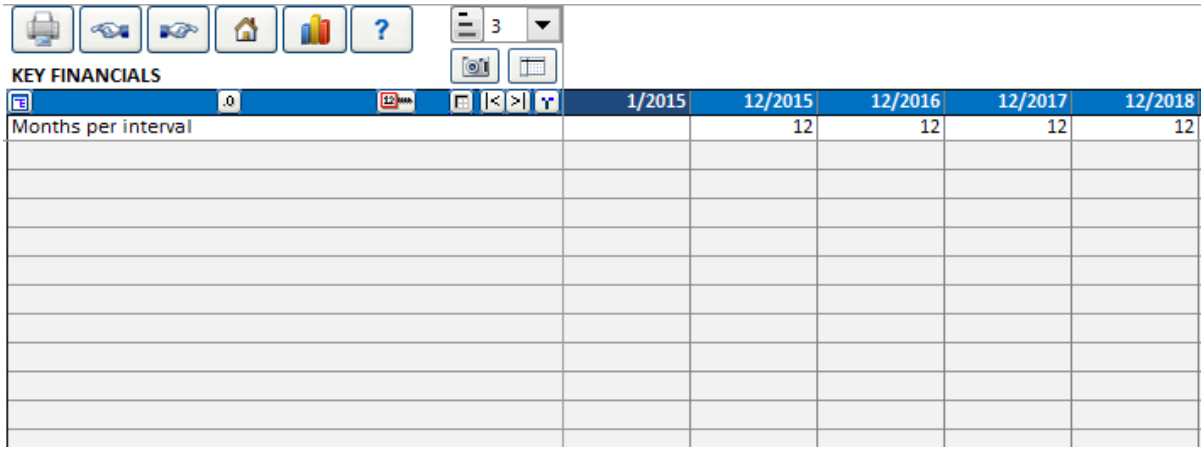
and in most cases even desirable, to ignore financing and let bank and cash be negative in the beginning of the investment term.

Profits for the current financial year and the past years accumulate equity. **Debts** are shown under liabilities, and similarly, accounts payable is shown under short-term liabilities.

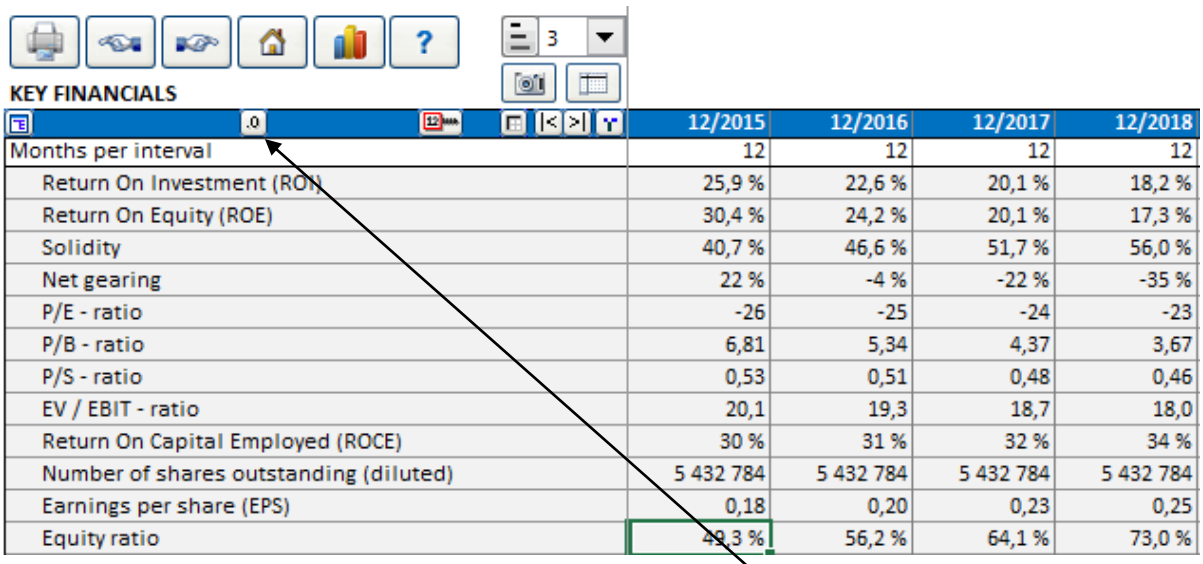
3.2.9 Key financials

A table with 60 editable rows is reserved for entering your own key financials:



	1/2015	12/2015	12/2016	12/2017	12/2018
Months per interval		12	12	12	12

Any type of ratios, information or totals can be defined:



	12/2015	12/2016	12/2017	12/2018
Months per interval	12	12	12	12
Return On Investment (ROI)	25,9 %	22,6 %	20,1 %	18,2 %
Return On Equity (ROE)	30,4 %	24,2 %	20,1 %	17,3 %
Solidity	40,7 %	46,6 %	51,7 %	56,0 %
Net gearing	22 %	-4 %	-22 %	-35 %
P/E - ratio	-26	-25	-24	-23
P/B - ratio	6,81	5,34	4,37	3,67
P/S - ratio	0,53	0,51	0,48	0,46
EV / EBIT - ratio	20,1	19,3	18,7	18,0
Return On Capital Employed (ROCE)	30 %	31 %	32 %	34 %
Number of shares outstanding (diluted)	5 432 784	5 432 784	5 432 784	5 432 784
Earnings per share (EPS)	0,18	0,20	0,23	0,25
Equity ratio	43,3 %	56,2 %	64,1 %	73,0 %

Number format of Key financials cells can easily be changed using the .0 button in the header bar.

The key financials can be used in Invest for Excel charts and sensitivity analyses.

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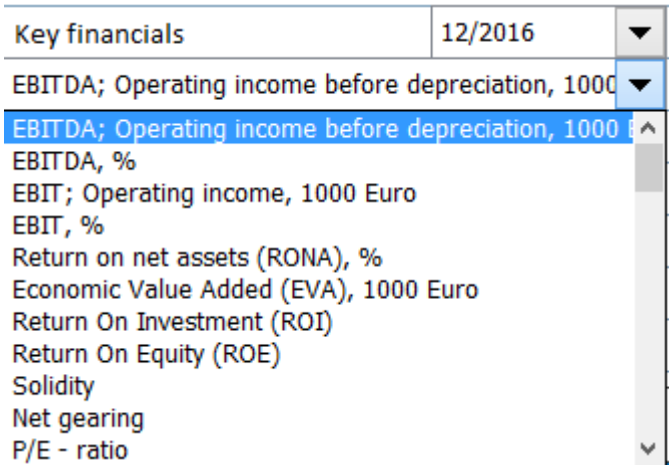
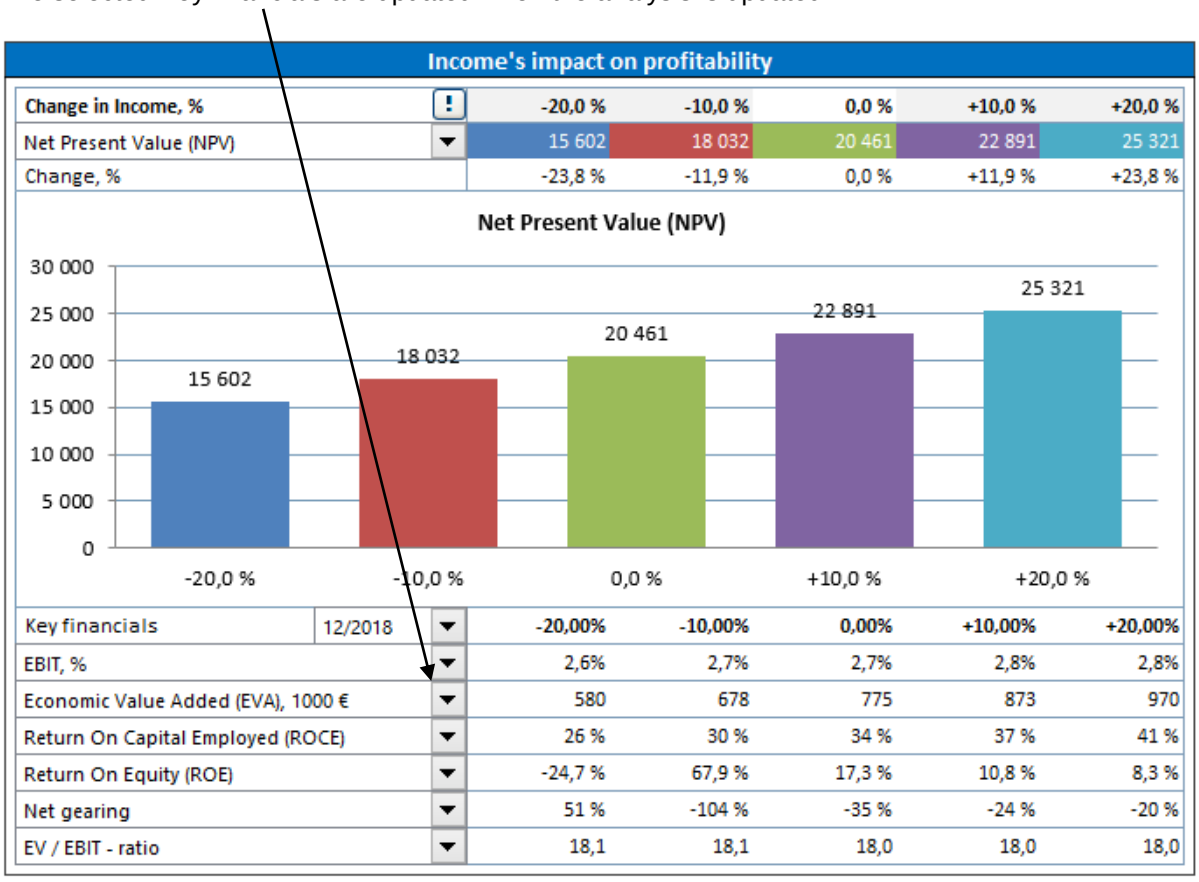
3.2.9.1 Key financials in analyses

In the Analysis sheet, each analysis can use Key financials as period-specific ratios. For each of the 6 period-specific rows, you can select “EBITDA; Operating income before depreciation”, “EBITDA, %”, "EBIT; Operating income", "EBIT, %", "Return on net assets (RONA), %", "Economic Value Added (EVA)" or any of your own added Key financials:



The selected Key financials are updated when the analysis is updated:



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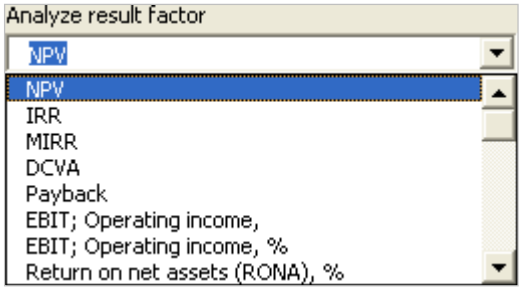
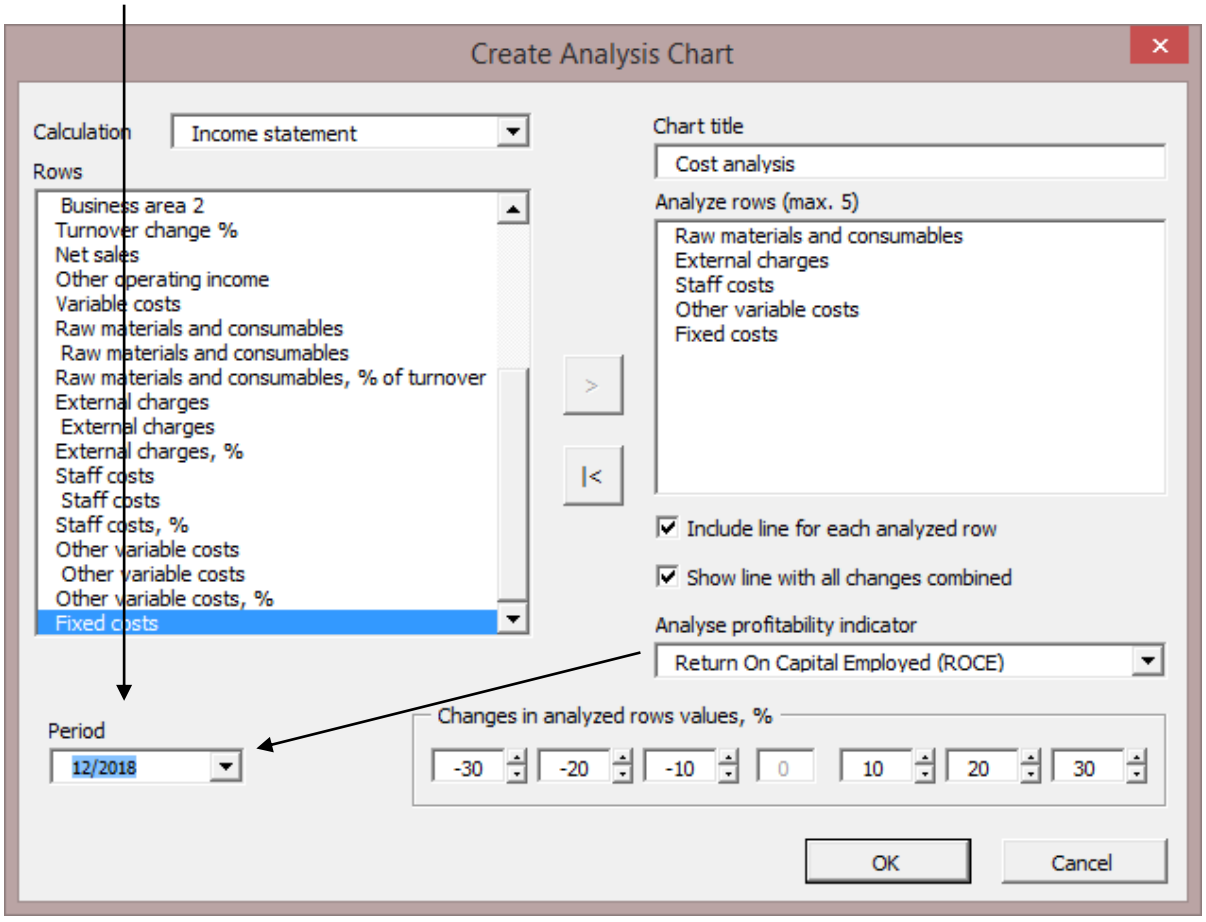
When you create custom analysis charts, you can analyse the following indicators: NPV, IRR, IRR before tax, MIRR, Profitability Index (PI), DCVA, Payback, Simple Payback, *EBITDA; Operating income before depreciation', 'EBITDA %', 'EBIT; Operating income', 'EBIT; Operating income, %', 'Return on net assets (RONA), %', 'Economic Value Added (EVA)' and any of the entered Key financials:



In the Enterprise edition also the following ratios are available when FCFE is activated: 'Net Present Value to equity (NPVe)', 'Internal Rate of Return to equity (IRRe)', 'Internal Rate of Return to equity before tax', 'Modified Internal Rate of Return to equity (MIRRe)', 'Payback time to equity' and 'Simple payback time to equity'.

When a period-specific Key financial is selected, you also need to specify which period you want to analyse:



3.2.10 Roll Forecast

This feature is available in the Pro edition and Enterprise edition of Invest for Excel.

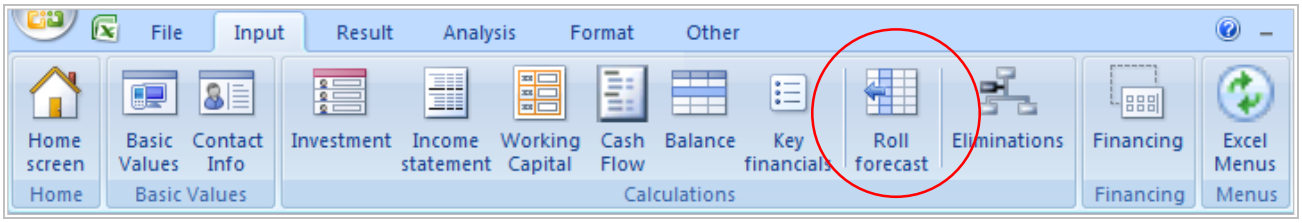
You can use this feature when you want to have a rolling forecast, i.e. a time-frame that stays the same but moves forward in time when new actual figures are available.

Before rolling:

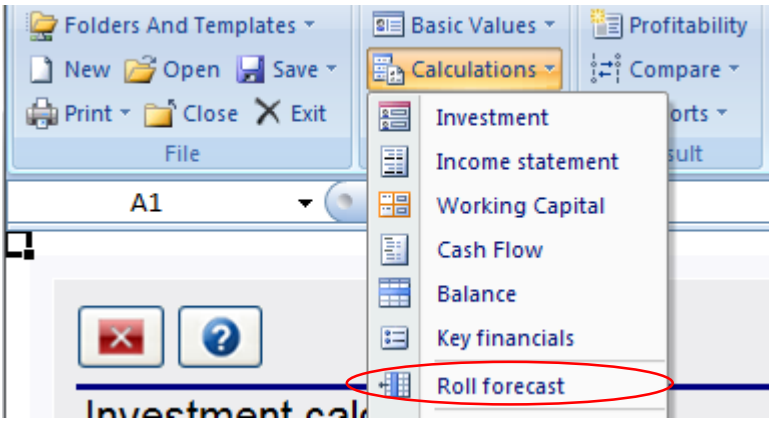
INCOME STATEMENT

1000 EUR	3/2014	6/2014	9/2014	12/2014	3/2015	6/2015	9/2015	12/2015
Months per interval	3	3	3	3	3	3	3	3
Income specified:								
Sales forecast	23 345	24 120	22 970	23 988	24 127	24 127	24 127	24 127
Income	**23 345**	**24 120**	**22 970**	**23 988**	**24 127**	**24 127**	**24 127**	**24 127**
(cumulative financial year)	23 345	47 465	70 435	94 423	24 127	48 254	72 381	96 508
Other operating income	1 320	1 100	1 100	1 100	1 106	1 106	1 106	1 106
Variable costs	-2 801	-2 894	-2 756	-2 856	-2 895	-2 895	-2 895	-2 895
Variable costs, total	-2 801	-2 894	-2 756	-2 856	-2 895	-2 895	-2 895	-2 895
Gross margin	**21 864**	**22 326**	**21 314**	**22 232**	**22 337**	**22 337**	**22 337**	**22 337**
Fixed costs	-4 570	-4 610	-4 660	-4 680	-4 703	-4 703	-4 703	-4 703
Fixed costs, total	-4 570	-4 610	-4 660	-4 680	-4 703	-4 703	-4 703	-4 703
Provisions, increase (-) / decrease (+)								
EBITDA; Operating income before depreciation	**17 294**	**17 716**	**16 654**	**17 552**	**17 634**	**17 634**	**17 634**	**17 634**
Depreciation	-32	-35	-35		-44	-88	-247	-7 691
EBIT; Operating income	**17 262**	**17 681**	**16 619**	**17 552**	**17 590**	**17 546**	**17 387**	**9 943**
Financing income and expenses	-120	-122	-122	-124	-125	-125	-125	-125
Financing income and expenses	-120	-122	-122	-124	-125	-125	-125	-125
Financing income and expenses Financing file								
EBT; Income after financing items	**17 142**	**17 559**	**16 497**	**17 428**	**17 465**	**17 421**	**17 262**	**9 818**
Income tax				-15 940	0	0	0	-16 111
Net income for the period	**17 142**	**17 559**	**16 497**	**1 488**	**17 465**	**17 421**	**17 262**	**-6 293**
(cumulative financial year)	17 142	34 700	51 197	52 685	17 465	34 885	52 147	45 854
% (cumulative financial year)	73,4%	73,1%	72,7%	55,8%	72,4%	72,3%	72,0%	47,5%

In the Invest for Excel menus, Roll forecast can be found in the Input page:



In the short menu:



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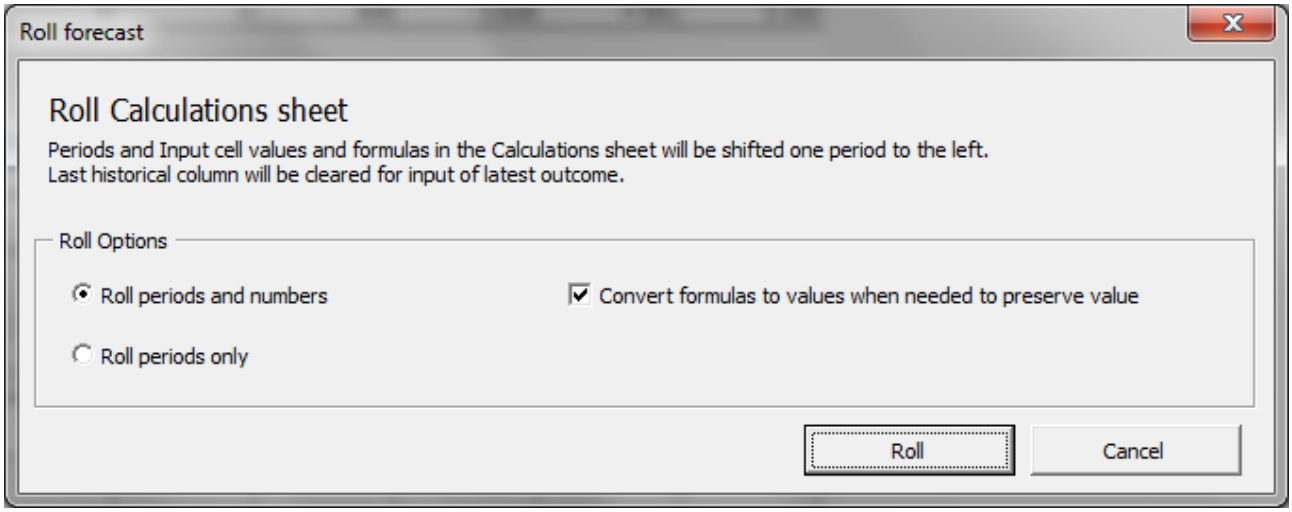
Roll forecast
Roll Calculations sheet
Periods and Input cell values and formulas in the Calculations sheet will be shifted one period to the left.
Last historical column will be cleared for input of latest outcome.
Roll Options
Roll periods and numbers
Convert formulas to values when needed to preserve value
Roll periods only
Roll
Cancel

You can choose to roll periods and numbers or periods only. When you roll numbers, formulas are converted to values if the moved formula would change the value of the cell. If you however prefer to keep all formulas even if values would change, you can uncheck the “Convert formulas to values when needed to preserve value” checkbox.

After rolling (periods and numbers):

INCOME STATEMENT

1000 EUR	6/2014	9/2014	12/2014	3/2015	6/2015	9/2015	12/2015	3/2016
Months per interval	3	3	3	3	3	3	3	3
Income specified:								
Sales forecast	24 120	22 970	23 988		24 127	24 127	24 127	24 610
Income	**24 120**	**22 970**	**23 988**	**0**	**24 127**	**24 127**	**24 127**	**24 610**
(cumulative financial year)	24 120	47 090	71 078	0	24 127	48 254	72 381	24 610
Other operating income	1 100	1 100	1 100		1 106	1 106	1 106	1 111
Variable costs	-2 894	-2 756	-2 856	0	-2 895	-2 895	-2 895	-2 953
Variable costs, total	-2 894	-2 756	-2 856		-2 895	-2 895	-2 895	-2 953
Gross margin	**22 326**	**21 314**	**22 232**	**0**	**22 337**	**22 337**	**22 337**	**22 767**
Fixed costs	-4 610	-4 660	-4 680	0	-4 703	-4 703	-4 703	-4 727
Fixed costs, total	-4 610	-4 660	-4 680		-4 703	-4 703	-4 703	-4 727
Provisions, increase (-) / decrease (+)								
EBITDA; Operating income before depreciation	**17 716**	**16 654**	**17 552**	**0**	**17 634**	**17 634**	**17 634**	**18 041**
Depreciation	-35	-35			-88	-247	-291	-176
EBIT; Operating income	**17 681**	**16 619**	**17 552**	**0**	**17 546**	**17 387**	**17 342**	**17 864**
Financing income and expenses	-122	-122	-124	0	-125	-125	-125	-126
Financing income and expenses	-122	-122	-124		-125	-125	-125	-126
Financing income and expenses Financing file								
EBT; Income after financing items	**17 559**	**16 497**	**17 428**	**0**	**17 421**	**17 262**	**17 217**	**17 738**
Income tax			-15 940		0	0	-13 494	0
Net income for the period	**17 559**	**16 497**	**1 488**	**0**	**17 421**	**17 262**	**3 723**	**17 738**
(cumulative financial year)	17 559	34 055	35 543	0	17 421	34 682	38 406	17 738
% (cumulative financial year)	72,8%	72,3%	50,0%		72,2%	71,9%	53,1%	72,1%

You can see that actual values (2014) have moved left and quarter 3/2015 is cleared for actual numbers entry.

When rolling periods only, all numbers stay in their cells and only the periods are moved one column to the left.

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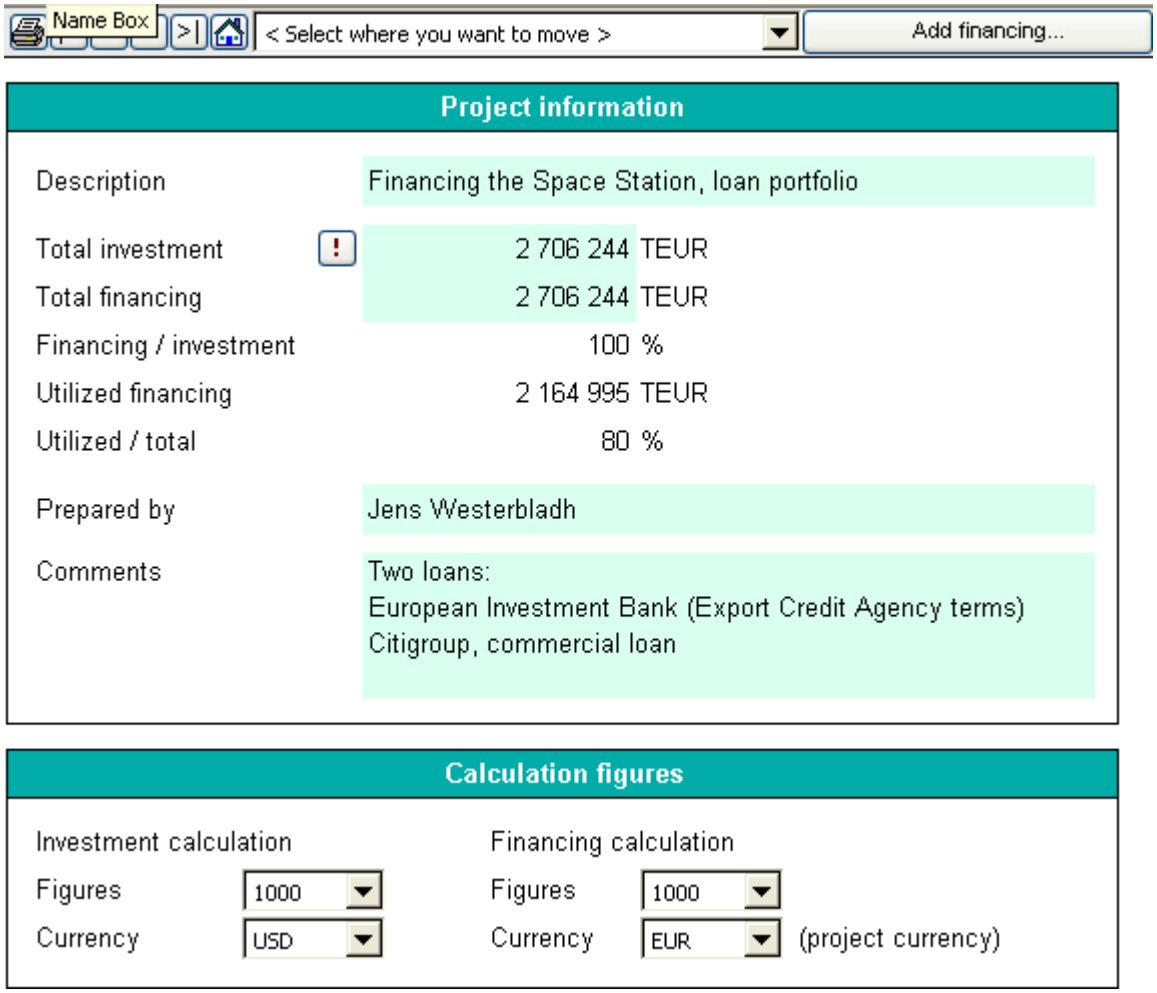
3.3 Debt financing (Enterprise edition)

With the additional *Financing* module, included in the Enterprise edition, you can plan the financing of your investment.

Use the Financing module to find the need for financing in your investment calculation, and transfers interest expenses and amortisation instalments to it.

The financing module will be explained in more detail in **Chapter 11: Financing module**. Here is only a short overview (3 pages):

Project details screen:



The financing module enables you to compile a financing package consisting of one or more loans. You can add loans by clicking the **Add financing** button. The program covers various types of loans and the costs associated with them.

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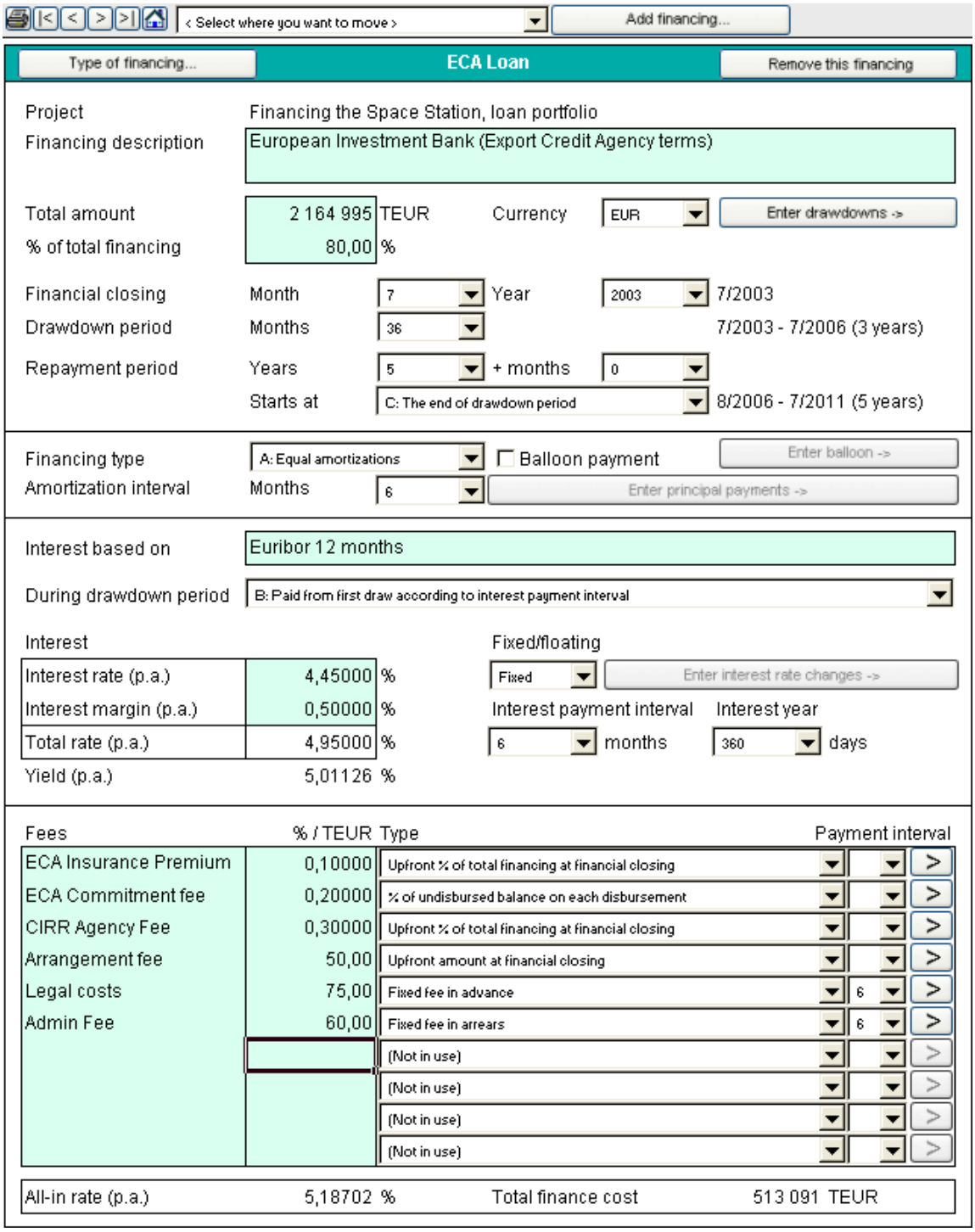
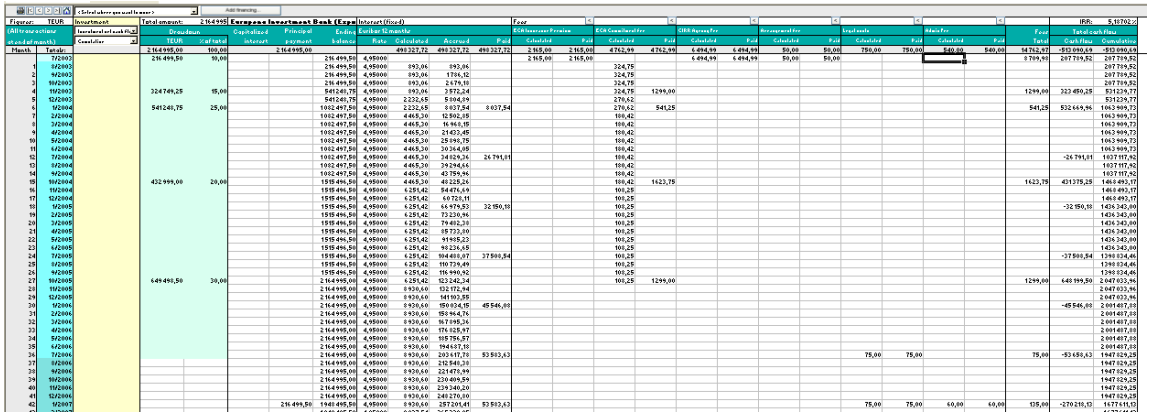
Param –sheet: Entering loan parameters:



Spec –sheet: Specification of the loan in a detailed tabular form:



The loan can be viewed also in report form. You can set the rows, columns and interval lengths as you please. **View** –sheet: Example of loan summary:

< Select where you want to move > Add financing...

Financing the Space Station, loan portfolio

Europena Investment Bank (Export Credit Agency terms)

Figures TEUR		7/2003	8/2003 - 1/2004	2/2004 - 7/2004	8/2004 - 1/2005	2/2005 - 7/2005	8/2005 - 1/2006	2/2006 - 7/2006	8/2006 - 7/2007	8/2007 - 7/2008	8/2008 - 7/2009	8/2009 - 7/2010	8/2010 - 7/2011	7/2003 - 7/2011
Number of months			6	6	6	6	6	6	12	12	12	12	12	96
Period		Fin. closing	Drawdown period (36 months)						Repayment period (5 years)					Total
Total financing		2 164 995												
Starting balance			216 500	1 082 498	1 082 498	1 515 497	1 515 497	2 164 995	2 164 995	1 731 996	1 298 997	865 998	432 999	
Drawdown	a)	216 500	865 998		432 999		649 499							2 164 995
Capitalized interest														
Principal payments	b)								432 999	432 999	432 999	432 999	432 999	2 164 995
Ending balance		216 500	1 082 498	1 082 498	1 515 497	1 515 497	2 164 995	2 164 995	1 731 996	1 298 997	865 998	432 999		
Interest expense	c)		8 038	26 792	32 150	37 509	45 546	53 584	101 809	80 375	58 942	37 509	16 075	498 328
ECA Insurance Premium		2 165												2 165
ECA Commitment fee			1 840		1 624		1 299							4 763
CIRR Agency Fee		6 495												6 495
Arrangement fee		50												50
Legal costs								75	150	150	150	150	75	750
Admin Fee									120	120	120	120	60	540
Total fees	d)	8 710	1 840		1 624		1 299	75	270	270	270	270	135	14 763
Total debt service	(b+c+d)	8 710	9 878	26 792	33 774	37 509	46 845	53 659	535 078	513 644	492 211	470 778	449 209	2 678 086
Total cash flow	(a-b-c-d)	207 790	856 120	-26 792	399 225	-37 509	602 653	-53 659	-535 078	-513 644	-492 211	-470 778	-449 209	-513 091
Cumulative cash flow		207 790	1 063 910	1 037 118	1 436 343	1 398 834	2 001 488	1 947 829	1 412 751	899 107	406 896	-63 882	-513 091	

All-in rate (p.a.)	5,187 %
Total finance cost (Total interest and fees paid)	513 091

When the financing is made up of several loans, the program will make a summary of all loans, including details and a report. (TotalSpec & TotalView -sheets)

TotalView –sheet: Example of summary report:

< Select where you want to move > Add financing...

Financing the Space Station, loan portfolio

TOTAL FINANCING

Figures TEUR		2/2003	3/2003 - 2/2004	3/2004 - 2/2005	3/2005 - 2/2006	3/2006 - 2/2007	3/2007 - 2/2008	3/2008 - 2/2009	3/2009 - 2/2010	3/2010 - 2/2011	3/2011 - 7/2011	2/2003 - 7/2011
Number of months			12	12	12	12	12	12	12	12	5	101
Total financing		2 164 995										
Starting balance				1 082 498	1 515 497	2 164 995	1 948 496	1 515 497	1 082 498	649 499	216 500	
Drawdown	a)		1 082 498	432 999	649 499							2 164 995
Capitalized interest												
Principal payments	b)					216 500	432 999	432 999	432 999	432 999	216 500	2 164 995
Ending balance			1 082 498	1 515 497	2 164 995	1 948 496	1 515 497	1 082 498	649 499	216 500		
Interest expense	c)		8 038	58 942	83 055	107 167	91 092	69 659	48 225	26 792	5 358	498 328
Total fees	d)		10 550	1 624	1 299	210	270	270	270	270		14 763
Total debt service	(b+c+d)		18 588	60 566	84 354	323 877	524 361	502 928	481 494	460 061	221 858	2 678 086
Total cash flow	(a-b-c-d)		1 063 910	372 433	565 145	-323 877	-524 361	-502 928	-481 494	-460 061	-221 858	-513 091
Cumulative cash flow			1 063 910	1 436 343	2 001 488	1 677 611	1 153 250	650 322	168 828	-291 233	-513 091	

All-in rate (p.a.)	5,187 %
Total finance cost (Total interest and fees paid)	513 091

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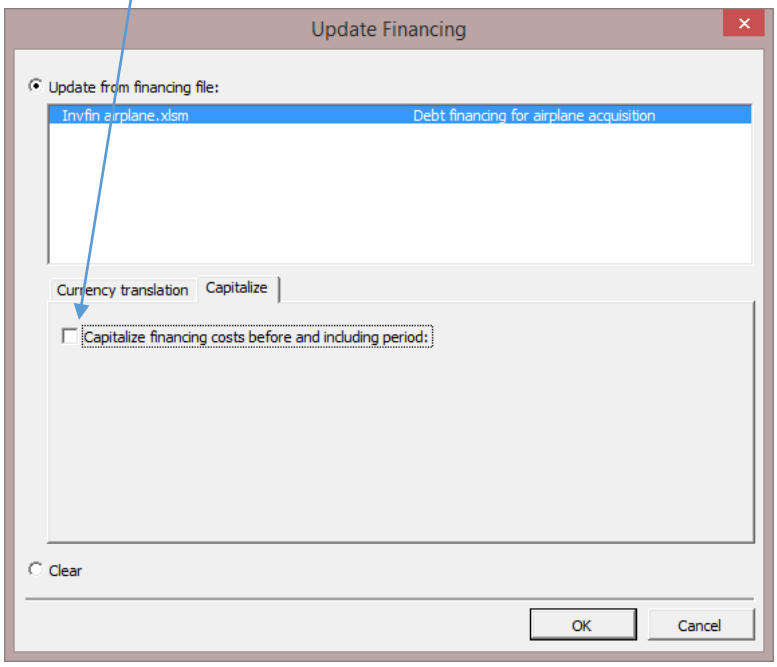
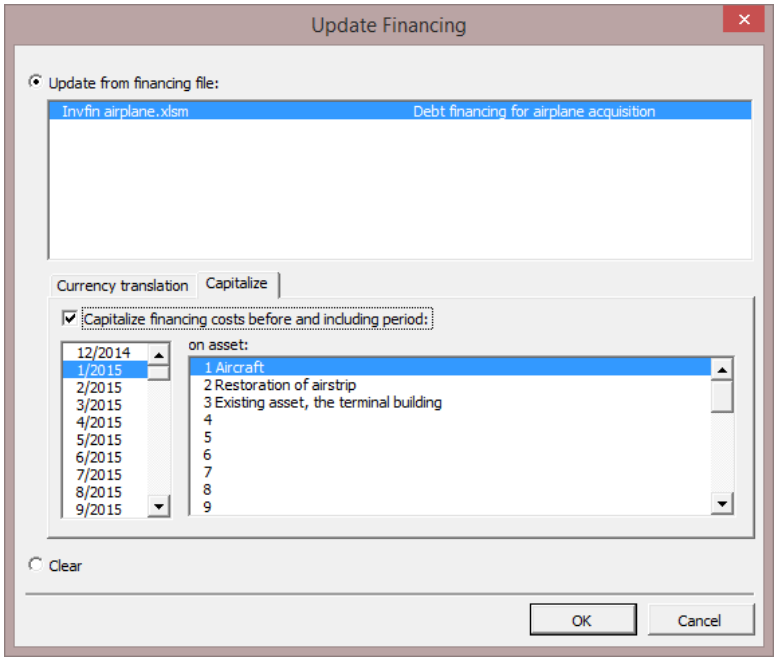
3.3.1 Capitalizing financing costs on assets

Part of the financing costs in a Financing file can be capitalized on an investment asset and depreciated in the Income statement according to the depreciation plan of the asset.

You can choose to capitalize financing costs when they are read to the Calculation file. Check the "Capitalize financing costs before and including period:" option in the Update financing dialog box.



Select the last month of financing costs that you want to capitalize and the investment table asset you want to capitalize the financing costs on.



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Without capitalization, all financing costs go to the Financing income and expense:

INCOME STATEMENT

	1/2008	12/2008	12/2009	12/2010	12/2011	12/2012
Months per interval		12	12	12	12	12
EBITDA; Operating income before depreciation		**150 000**	**300 000**	**315 000**	**330 750**	**347 288**
Depreciation	0	0	0	-100 000	-100 000	-100 000
EBIT; Operating income	**0**	**150 000**	**300 000**	**215 000**	**230 750**	**247 288**
Financing income and expenses						
Financing income and expenses						
Financing income and expenses Financing file		-36 400	-32 663	-28 925	-25 188	-21 450
EBT; Income after financing items	**0**	**113 600**	**267 338**	**186 075**	**205 563**	**225 838**

When capitalization is used, the capitalized part of the financing costs is included in the chosen assets book value and depreciated accordingly.

INVESTMENTS (-) / REALIZATIONS (+)

Imputed depreciation	Depr.-%	1/2008	12/2008	12/2009	12/2010	12/2011	12/2012
Months per interval			12	12	12	12	12
1		**-1 000 000**					
Depreciation (straight line)	**10,00%**				-106 906	-106 906	-106 906
Book value		1 000 000	1 036 400	1 069 063	962 156	855 250	748 344
Investments		**-1 000 000**	**0**	**0**	**0**	**0**	**0**

INCOME STATEMENT

	1/2008	12/2008	12/2009	12/2010	12/2011	12/2012
Months per interval		12	12	12	12	12
EBITDA; Operating income before depreciation		**150 000**	**300 000**	**315 000**	**330 750**	**347 288**
Depreciation	0	0	0	-106 906	-106 906	-106 906
EBIT; Operating income	**0**	**150 000**	**300 000**	**208 094**	**223 844**	**240 381**
Financing income and expenses						
Financing income and expenses						
Financing income and expenses Financing file				-28 925	-25 188	-21 450
EBT; Income after financing items	**0**	**150 000**	**300 000**	**179 169**	**198 656**	**218 931**

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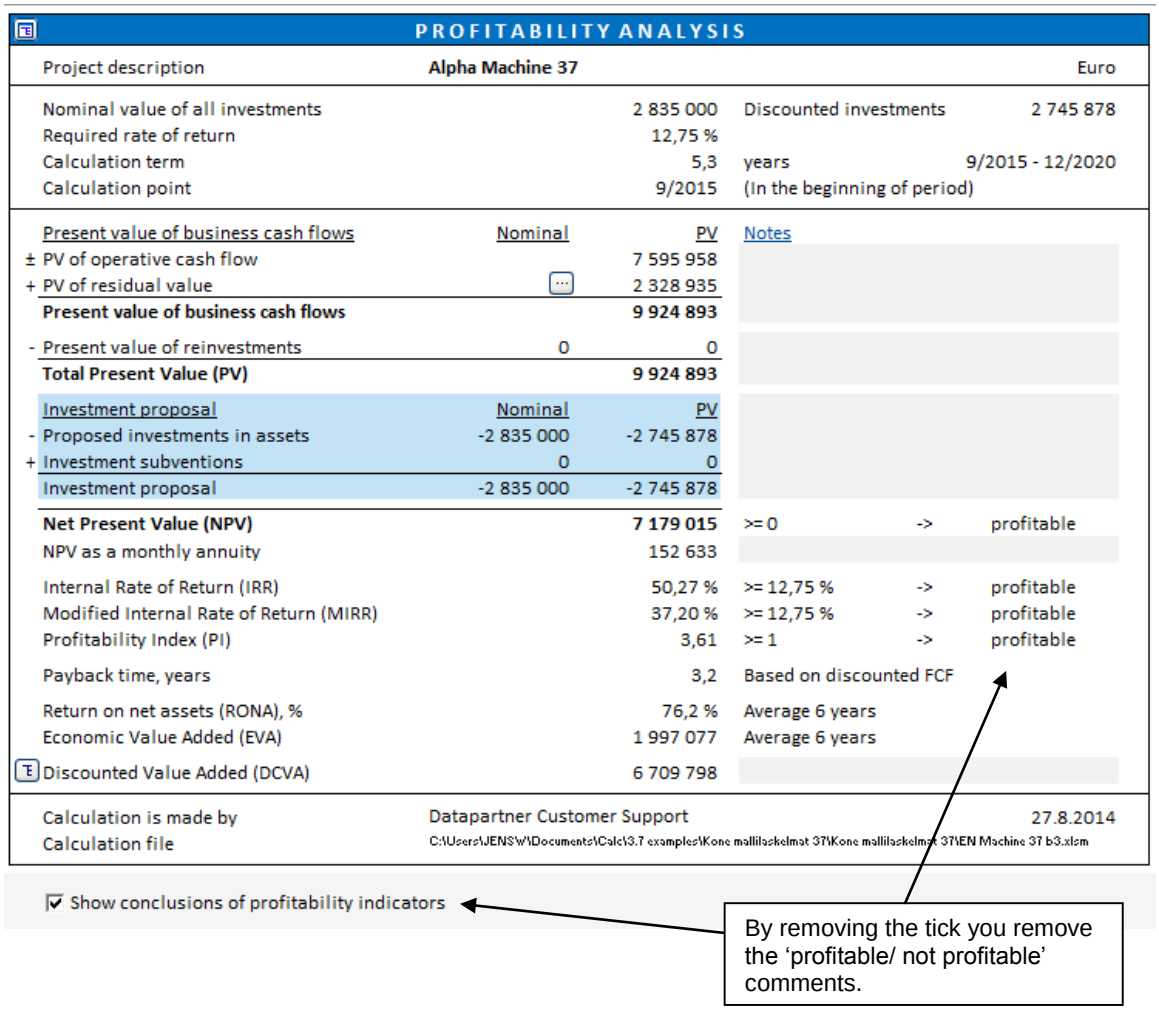
4 Result

4.1 Profitability analysis

The result of the investment calculation is shown in this table:



PROFITABILITY ANALYSIS

Project description	**Alpha Machine 37**				Euro
Nominal value of all investments		2 835 000	Discounted investments		2 745 878
Required rate of return		12,75 %			
Calculation term		5,3	years		9/2015 - 12/2020
Calculation point		9/2015	(In the beginning of period)		
Present value of business cash flows	Nominal	PV	Notes		
± PV of operative cash flow		7 595 958			
+ PV of residual value		2 328 935			
Present value of business cash flows		**9 924 893**			
- Present value of reinvestments	0	0			
Total Present Value (PV)		**9 924 893**			
Investment proposal	Nominal	PV			
- Proposed investments in assets	-2 835 000	-2 745 878			
+ Investment subventions	0	0			
Investment proposal	-2 835 000	-2 745 878			
Net Present Value (NPV)		**7 179 015**	>= 0	->	profitable
NPV as a monthly annuity		152 633			
Internal Rate of Return (IRR)		50,27 %	>= 12,75 %	->	profitable
Modified Internal Rate of Return (MIRR)		37,20 %	>= 12,75 %	->	profitable
Profitability Index (PI)		3,61	>= 1	->	profitable
Payback time, years		3,2	Based on discounted FCF		
Return on net assets (RONA), %		76,2 %	Average 6 years		
Economic Value Added (EVA)		1 997 077	Average 6 years		
Discounted Value Added (DCVA)		6 709 798			
Calculation is made by	Datapartner Customer Support				27.8.2014
Calculation file	C:\Users\JENSW\Documents\Calc\3.7 examples\Kone mallilaskelmat 37\Kone mallilaskelmat 37\EN Machine 37 b3.xlsm				

☑ Show conclusions of profitability indicators

By removing the tick you remove the 'profitable/ not profitable' comments.

An investment is considered profitable when the IRR and MIRR are at least as high as the discount rate (capital cost), NPV is positive (>=0) and PI is at least 1.

Project description the descriptive text from the **Basic Values** table.

Nominal value of all investments is the sum of all investments defined in the **Investments** table.

Discounted Investments the discounted sum of all investments defined in the **Investments** table.

Required rate of return the discount rate entered in the **Basic Values** table.

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Calculation term Number of years and the starting and ending months of the project.

Calculation point The point in time to where the Free cash flow is discounted/compounded. By default, the calculation point is equal to the starting point of the calculation term.

4.1.1 Profitability indicators

4.1.1.1 Net Present Value (NPV)

The net present value is the sum of discounted free cash flows after tax. NPV is an abbreviation of the term 'Net Present Value', a term widely used in other languages, too.

The method for calculating NPV is called the Discounted cash flow (DCF) method. The Discounted cash flow method is based on discounting the expected net investment cash flows *per interval* to the beginning of the investment term, using the investment's required rate of return.

NOTE! If the calculation point is not set at the beginning of the calculation term, free cash flow before the calculation point is compounded and free cash flow after the calculation point is discounted to the calculation point using the required rate of return.

Decision-making rule: *The investment is profitable when NPV* ≥ 0.

Formula: NPV = $\sum_{t=0}^{N} FCF_t * (1+r)^{-t}$

FCF (t) = Free cash flow in period t,
t = period, r = discount rate per period,
N = number of periods,
For residual values t = N

In acquisition calculations, net debt of the acquired company is deducted from NPV.

4.1.1.2 Monthly annuity of net present value

As the NPVs of two or more investments with different economic life are not directly comparable, a monthly annuity of NPV can be used as the basis for comparison.

Decision-making rule: *The higher the monthly annuity, the better the investment is*.

Formula: NPV as monthly annuity = NPV * $\left(\frac{r}{(1-(1+r)^{-n}} \right)$

r = discount rate per month
n= number of months

4.1.1.3 Discounted Value Added (DCVA)

DCVA = EVA for each financial year is discounted/compounded to calculation point. DCVA is the sum of discounted EVAs. DCVA gives approximately the same result as NPV. The following corrections are made to DCVA for compatibility with NPV:

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Asset investment/impairment test:
- Sum of discounted correction of income tax for financial items

Acquisition/valuation:
+ Tax effects, mother company
- Sum of discounted correction of income tax for financial items
+ Interest-bearing net debt of acquired company
+ Net assets, opening balance

Decision-making rule: *The investment is profitable when DCVA* ≥ 0.

4.1.1.4 Annuity of investment

The investment annuity method shows the sum of discounted investments divided into fixed amortisation instalments over the estimated term of the investment, using the discount factor as the interest rate. This method is not a profitability gauge as such, but it is a complementary indicator. Think of it as an annual leasing payment for the investment. It is an imputed cost of the investment per year.

By default, this row is hidden in the Profitability Analysis, but it can be shown pressing the -button, found top left.

4.1.1.5 Internal Rate of Return (IRR)

The internal rate of return is the discount rate resulting in NPV=0. In other words, this method is used to calculate the discount rate yielding a net present value of Cash flow from operations to equal the investment costs. IRR is an abbreviation of the term 'Internal Rate of Return'. The term is widely used in other languages, too. Internal rate of return is the most common investment profitability index.

Companies usually have a policy concerning the required rate of return on the investment capital. The required rate of return should at least match the financing costs. The required rate of return is staggered according to the type of investment. Staggering the required returns on different types of investments makes it possible to delegate investment decisions, and to direct operations in line with the chosen investment policy.

It makes sense to assess investment alternatives in advance on the basis of a specific rate of return requirement, as companies usually become aware of potential investment objects one by one.

FORMULA: The internal rate of return (IRR) is defined as the compound rate of return *r* that makes the NPV equal to zero:

Formula: $0 = NPV = \sum_{t=0}^{N} FCF_t * (1 + IRR)^{-t}$

FCF (t) = Free cash flow in period t,

t = period, IRR = Internal rate of return (per period)

N = number of periods, For residual values t = N

Multiple Internal Rates of Return. Sometimes a series of 'Free cash flows' has more than one IRR. *Invest for Excel* searches for 40 possible IRR's. If it finds more than one solution, it will return the highest and the lowest IRR.

4.1.1.6 Internal Rate of Return before tax

Internal rate of return before tax can be found in the Profitability analysis table.

Internal Rate of Return (IRR)	33,04 %	>= 12 %
Internal Rate of Return before tax	41,81 %	
Modified Internal Rate of Return (MIRR)	23,77 %	>= 12 %

In some type of calculations, like real estate valuations, IRR before tax is of interest. IRR before tax is calculated the same way as IRR, but with taxes added back to the cash flow.

When free cash flow is separated for firm and equity, IRR to Equity before tax is also available.

The IRR before tax row is hidden by default and must be unhidden manually.

Decision-making rule: *The investment is profitable when IRR ≥ (greater than or equal to) the required rate of return (discount factor).*

4.1.1.7 Modified IRR

Modified IRR differs from the above method in that it reinvests the returns at the discount rate, not at the Internal Rate of Return. In terms of the calculation, it means that interest accrues on the investment's cash flows primarily at the discount rate during its economic lifetime.

According to the traditional IRR method, the total annual profit is assumed to be reinvested at the same interest rate, meaning that the profit from this investment would be invested in something else yielding exactly the same rate of return.

If the internal rate of return differs significantly from the discount rate, being much higher or lower, use this method of calculating interest, as it is more prudent and realistic. Called Modified Internal rate of return according to the Baldwin theory (after its creator), it is abbreviated as Modified IRR in the Invest for Excel program.

Decision-making rule: *The investment is profitable when Modified IRR ≥ (greater than or equal to) the required rate of return (discount factor).*

MIRR is calculated as follows:

$$\text{MIRR} = \sqrt[n]{\frac{FV(\text{positive cash flows, reinvestment rate})}{-PV(\text{negative cash flows, finance rate})}} - 1$$

n = number of periods

reinvestment rate = required rate of return =discount rate

finance rate = cost of capital = WACC = discount rate

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In *Invest for Excel* is implemented same rate for positive cash flows as for negative cash flows.

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4.1.1.8 Profitability Index (PI)

Definition**:** The Profitability Index is the Total Present Value (PV), divided by the sum of discounted Investments. "PI" is the abbreviation of **Profitability Index**. **Benefit-Cost Ratio** is another term used for this measure.

Decision-making rule: *An investment is profitable, when the Profitability index* ≥ 1.

FORMULA: $$\text{Profitability index} = \frac{PV}{-C}$$

C = PV of Proposed investments*, PV = Present value of all other cash flows
* Proposed investments don't include investments categorized as Reinvestments (maintenance).

Implementation in Invest for Excel:

$$\text{Profitability index} = \frac{\text{PV of Free cash flow – PV of proposed investments}}{\text{PV of proposed investments}}$$

4.1.1.9 Payback time, years (discounted)

Definition: Payback time refers to the number of years the investment has to generate cash flows before NPV=0.

The program calculates the payback time from the discounted net cash flow. 'Payback' is the English term for the repayment period.

Decision-making rule: *The shorter the Payback time, the better the investment is*.

This rule is, however, not straightforward. For instance, it fails to take into account any consecutive cash flows, although they might be significant for profitability. *Therefore Payback should be used only as a supplement to other measures of profitability*.

You can also see when the Payback point will be reached (break-even point), i.e. cumulative discounted cash flow becomes greater than 0. If you want to know the payback time without the effect of the discount factor, change the discount rate to zero (0) in the Basic Values screen.

Payback is calculated using NPV formula.

Formula: $$0 = \text{NPV} = \sum_{t=0}^{N} FCF_t * (1+r)^{-t}$$

FCF (t) = Free cash flow in period t,
t = period, r = discount rate per period,
N = number of periods,
For residual values t = N

$$\text{Payback time, years} = \frac{\text{The number of periods (t) for which NPV = 0}}{\text{12 / Duration of period in months}}$$

In Invest for Excel payback is presented in years with one decimal. E.g. 3,6 is 3 years + 60% of 4th year (not 3 years and 6 months).

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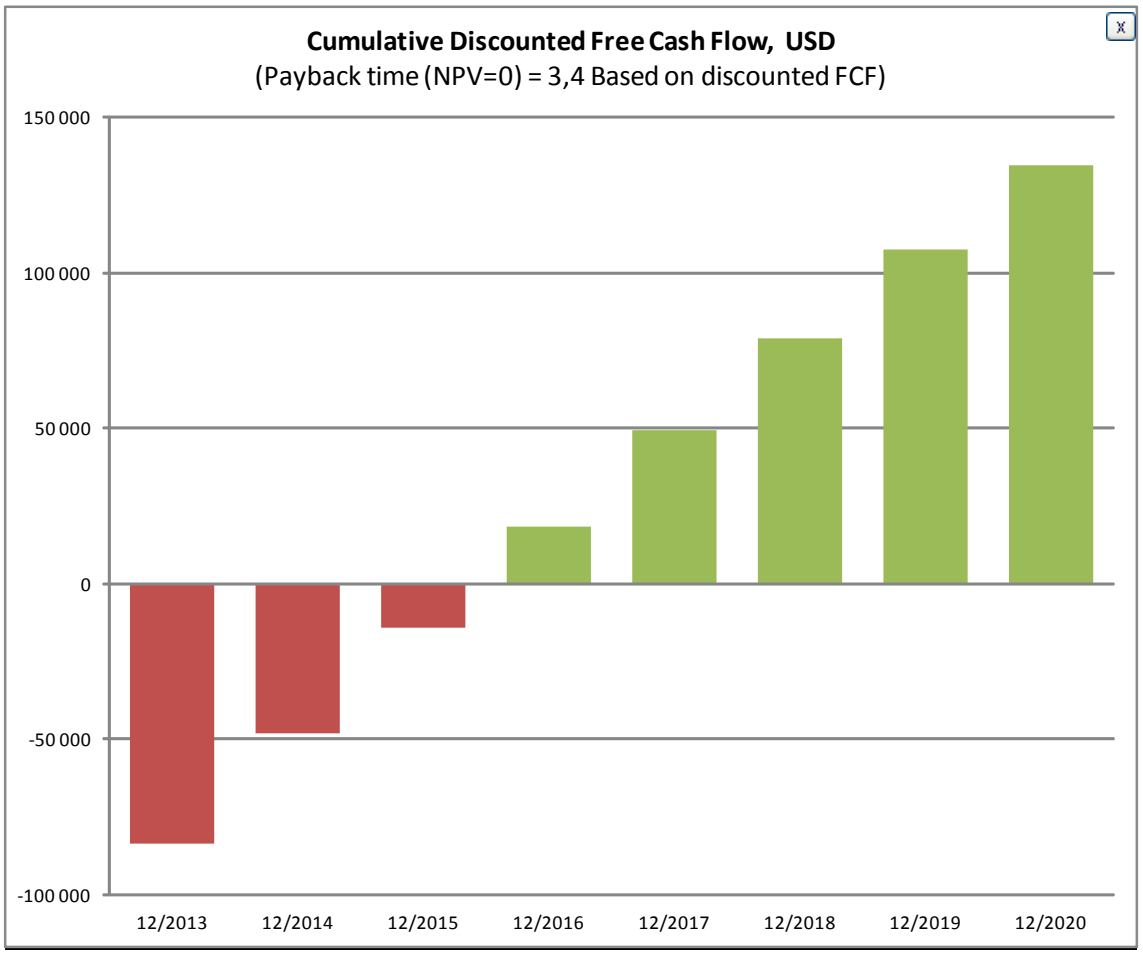
Payback can also be viewed as a chart. Click the button.



The chart is shown on a yearly basis, regardless of used intervals. Click to close the chart.

Residual values are not included in Payback

Residual column entries and perpetuity are not included when payback is calculated. Only cash flow during the actual calculation term is taken into account.

The reason for this is that residual values are often substantial and will make the cumulative discounted cash flow positive independent of the length of the calculation term. As a result, if residual values are included in payback, the shorter the calculation term, the shorter payback will be. This misleading effect has now been eliminated.

4.1.1.10 Simple Payback, years (not discounted)

Definition: Payback time refers to the number of years the investment has to generate cash flows equal to invested cash flows without considering time value of money.

The program calculates the Simple payback from the free cash flow. 'Payback' is the English term for the repayment period.

Decision-making rule: *The shorter the Simple payback, the better the investment is*.

This rule is, however, not straightforward. For instance, it fails to take into account time value of money and any consecutive cash flows, although they might be significant for profitability. *Simple payback should be used only as a supplement to other measures of profitability*.

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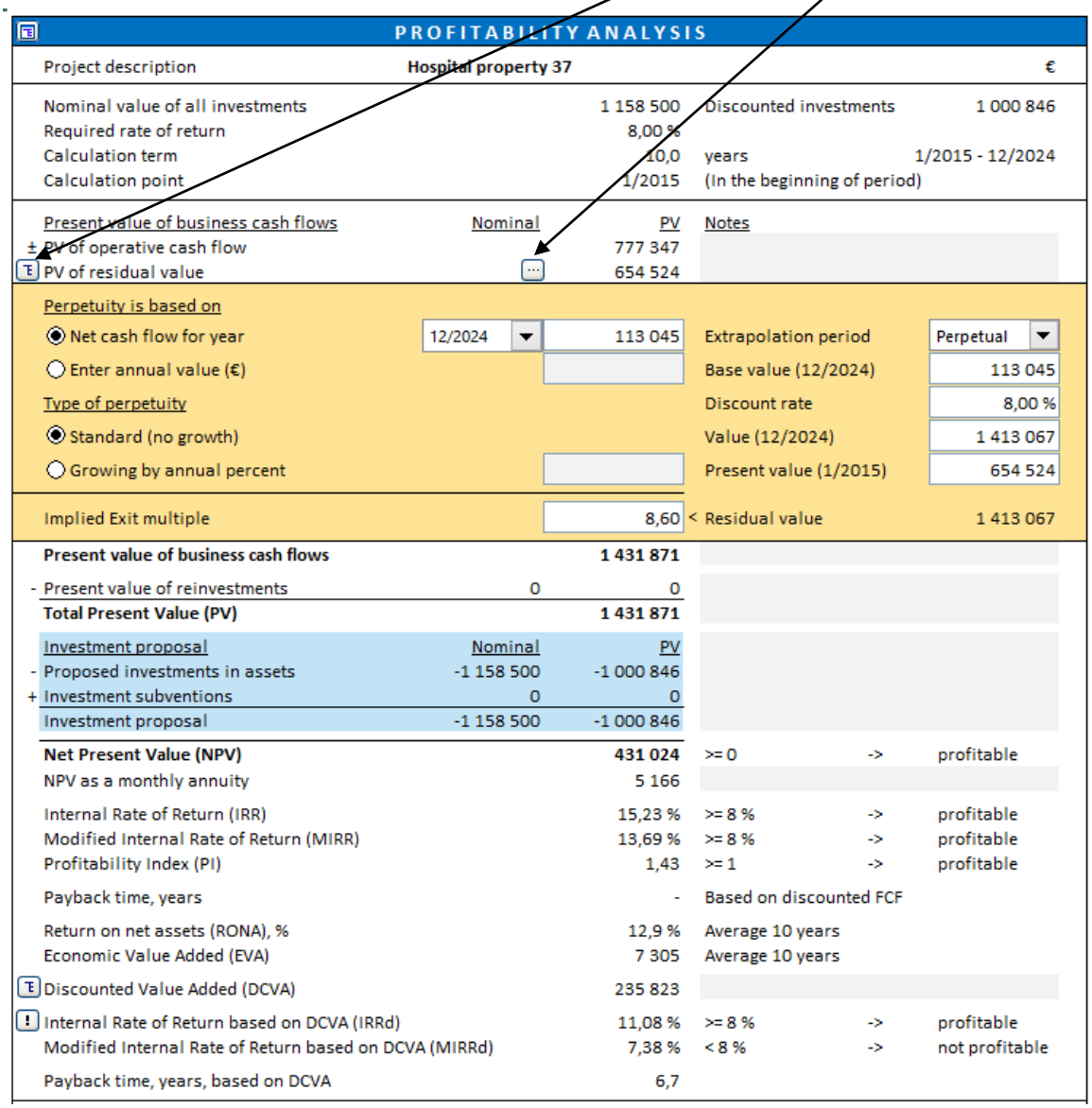
4.1.2 Perpetuity

In the Enterprise edition, the residual value of the investment calculation can be defined as a perpetuity value (Perpetuity can be chosen in the Residual value dialog box, ⋯ button). In this case, the perpetuity calculation can be opened (use the Ɛ button) in the result table:



PROFITABILITY ANALYSIS					
Project description	Hospital property 37				€
Nominal value of all investments		1 158 500	Discounted investments		1 000 846
Required rate of return		8,00 %			
Calculation term		10,0	years		1/2015 - 12/2024
Calculation point		1/2015	(In the beginning of period)		
Present value of business cash flows	Nominal	PV	Notes		
± PV of operative cash flow		777 347			
Ɛ PV of residual value	⋯	654 524			
Perpetuity is based on					
◉ Net cash flow for year	12/2024	113 045	Extrapolation period		Perpetual
○ Enter annual value (€)			Base value (12/2024)		113 045
Type of perpetuity			Discount rate		8,00 %
◉ Standard (no growth)			Value (12/2024)		1 413 067
○ Growing by annual percent			Present value (1/2015)		654 524
Implied Exit multiple		8,60	< Residual value		1 413 067
Present value of business cash flows		**1 431 871**			
- Present value of reinvestments	0	0			
Total Present Value (PV)		**1 431 871**			
Investment proposal	Nominal	PV			
- Proposed investments in assets	-1 158 500	-1 000 846			
+ Investment subventions	0	0			
Investment proposal	-1 158 500	-1 000 846			
Net Present Value (NPV)		**431 024**	>= 0	->	profitable
NPV as a monthly annuity		5 166			
Internal Rate of Return (IRR)		15,23 %	>= 8 %	->	profitable
Modified Internal Rate of Return (MIRR)		13,69 %	>= 8 %	->	profitable
Profitability Index (PI)		1,43	>= 1	->	profitable
Payback time, years		-	Based on discounted FCF		
Return on net assets (RONA), %		12,9 %	Average 10 years		
Economic Value Added (EVA)		7 305	Average 10 years		
Ɛ Discounted Value Added (DCVA)		235 823			
! Internal Rate of Return based on DCVA (IRRd)		11,08 %	>= 8 %	->	profitable
Modified Internal Rate of Return based on DCVA (MIRRd)		7,38 %	< 8 %	->	not profitable
Payback time, years, based on DCVA		6,7			

Perpetuity can be calculated A) with the net cash flow for a selected year as basis, or B) by entering the basis value for Perpetuity.

Furthermore, you can calculate A) a standard Perpetuity, or B) a growing Perpetuity. For growing perpetuity, a growth percentage should be entered. Note, that the growth percentage can also be negative, if negative growth is to be expected.

Note that the impact of Perpetuity on the result of the calculation can be substantial. Perpetuity should be used when calculating projects that are expected to go on for the foreseeable future. An example of such a calculation is a corporate acquisition calculation.

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Perpetuity is not applicable on projects with clear economic lifetimes.

The formulas for calculation of perpetuity

A) Standard Perpetuity

P= C/r

where
P - perpetuity
C - cash flow selected for perpetuity (net cash flow for selected year or entered annual value)
r – discount rate

PV of perpetuity = $P/(1+r)^{-t}$

where
P – perpetuity
r – discount rate per period
t – period

B) Growing Perpetuity

P= C/r-g

where
P - perpetuity
C - cash flow selected for the perpetuity (net cash flow for selected year or entered annual value)
r – discount rate
g - growth rate

PV of perpetuity = $P/(1+r)^{-t}$

where
P – perpetuity
r – discount rate per period
t – period

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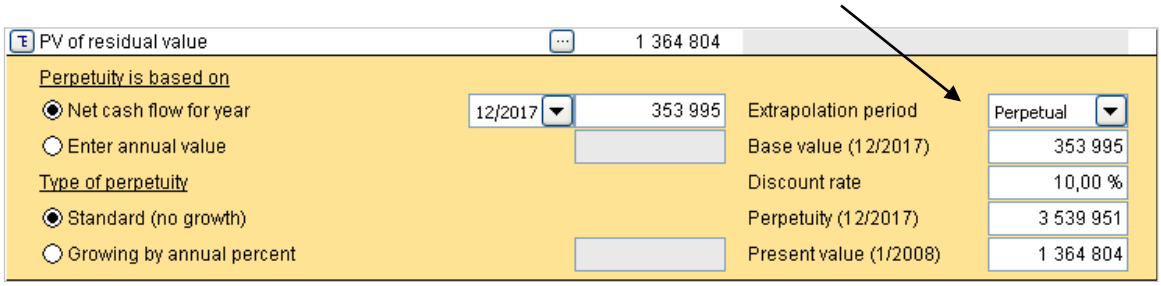
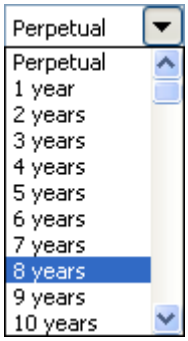
4.1.2.1 Extrapolation period

Perpetuity can be restricted to an extrapolation period of 1-100 years in addition to a perpetual period.

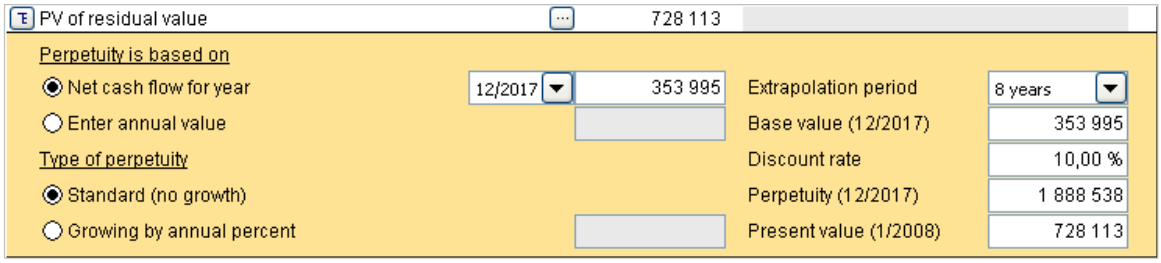
The standard way of calculating Perpetuity is discounting a perpetual cash flow.



You can also limit the discounted cash flow to a number of years (1-100) by using the Extrapolation term dropdown list.



The discounted cash flow is limited to the selected number of years.



This is useful if the expected economic lifetime of the primary asset is known but you don't want to create a full cash flow forecast for that long a period. Also, in impairment testing, reporting standards can stipulate that a full forecast model should be created for a fixed number of years and the last year's cash flow should be used as base for discounted cash flows for another number of years.

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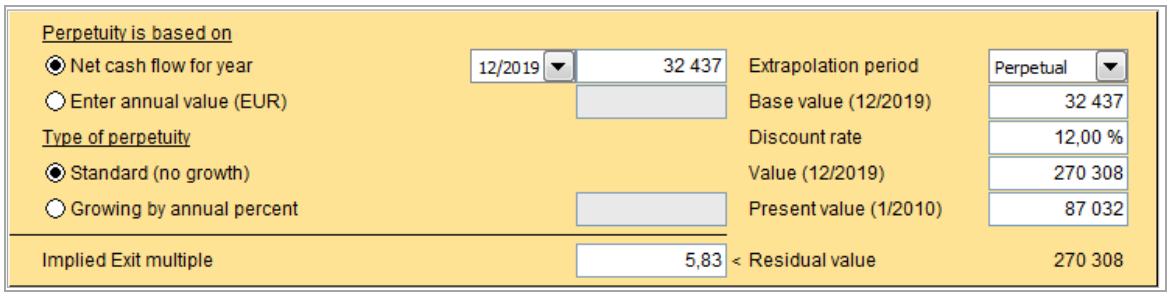
4.1.2.2 Implied exit multiple

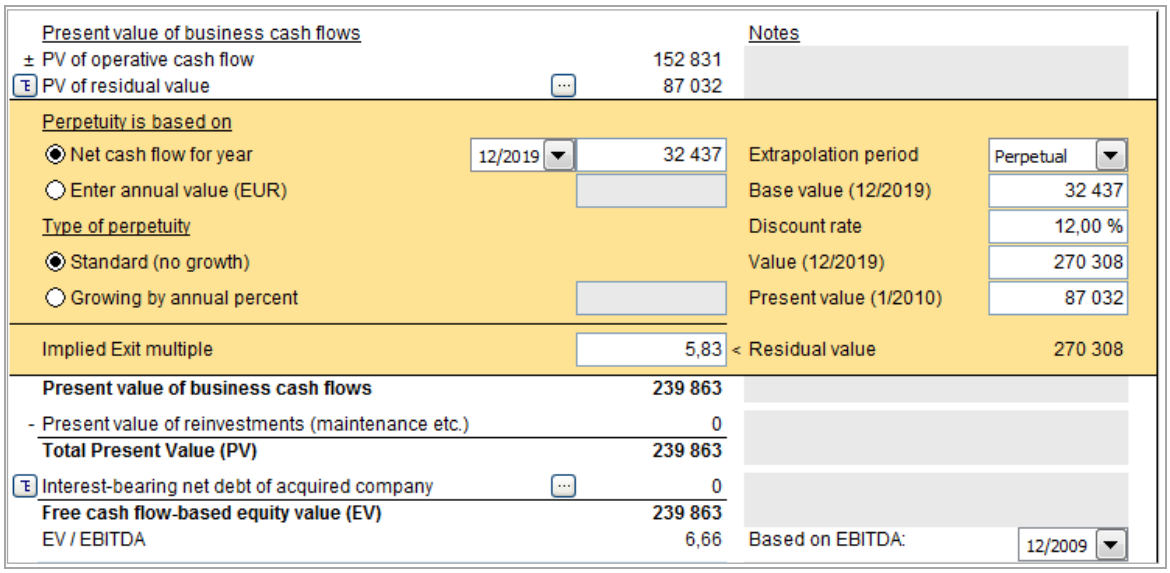
When perpetuity/extrapolation is used, an implied exit multiple is automatically calculated in the bottom of the perpetuity calculation table.



The implied exit multiple is: undiscounted residual value / last year's EBITDA.

4.1.2.3 EV / EBITDA

In a valuation file Profitability analysis an EV / EBITDA-ratio is calculated.



EV is the Free cash flow-based equity value (also referred to as Enterprise value) and EBITDA can be selected from a dropdown list consisting of the periods in the calculation.

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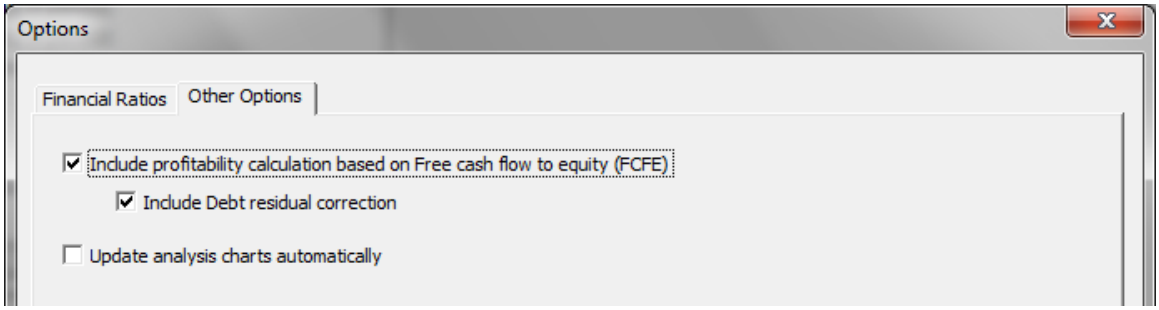
4.1.3 Profitability calculation based on Free cash flow to equity (FCFE)

Enterprise edition includes a break-down of free cash flow to Free cash flow to firm (FCFF) and Free cash flow to equity (FCFE).

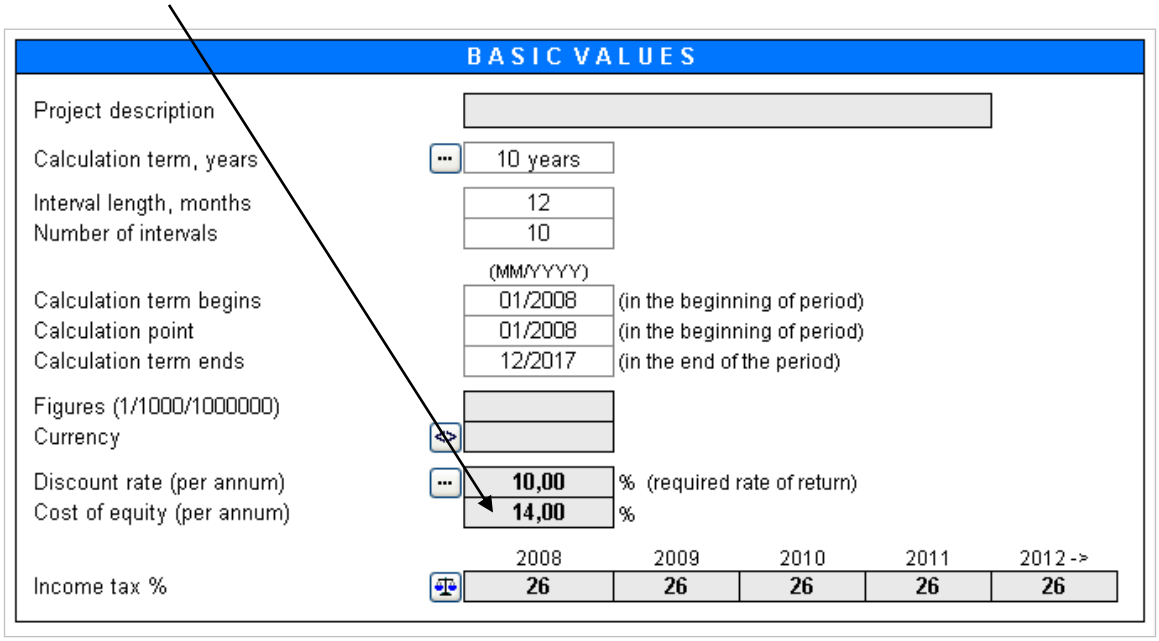
Program options

You can include FCFE in the Invest for Excel program options:


Options
Financial Ratios
Other Options
Include profitability calculation based on Free cash flow to equity (FCFE)
Include Debt residual correction
Update analysis charts automatically

Basic values

Cost of equity is added to the Basic values table, when FCFE calculation is included in the file.



Enter the required after-tax rate of return on equity. Note that Invest for Excel doesn't make a distinction between Preferred stock and common stock. Cost of equity should be return on all equity.

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Cash flow statement

When FCFE is included, the Free cash flow (FCF) is renamed to Free cash flow to firm (FCFF) and three rows are added to the Cash flow statement: Free cash flow to equity (FCFE), Discounted free cash flow to equity (DFCFE) and Cumulative discounted free cash flow to equity.

CASH FLOW STATEMENT

	1/2008	12/2008	12/2009	12/2010	12/2011	12/2012
Months per interval		12	12	12	12	12
Cash flow from operations						
Income	0	150 000	300 000	315 000	330 750	347 288
Variable costs	0	0	0	0	0	0
Fixed costs	0	0	0	0	0	0
Extraordinary income & expenses	0	0	0	0	0	0
Income tax (adjusted)	0	-13 000	-52 000	-55 900	-59 995	-64 295
Change in working capital	0	0	0	0	0	0
Cash flow from operations	**0**	**137 000**	**248 000**	**259 100**	**270 755**	**282 993**
Asset investments and realizations	-1 000 000	0	0	0	0	0
Free cash flow to firm (FCFF)	**-1 000 000**	**137 000**	**248 000**	**259 100**	**270 755**	**282 993**
Discounted free cash flow to firm (DFCFF)	-1 000 000	124 545	204 959	194 666	184 929	175 716
Cumulative discounted free cash flow to firm	-1 000 000	-875 455	-670 496	-475 830	-290 901	-115 185
Information						
Financial cash flow						
Financial income and expenses	0	-36 400	-32 663	-28 925	-25 188	-21 450
Correction of income tax for financial items	0	9 464	8 492	7 521	6 549	5 577
Long-term debt, increase (+) / decrease (-)	650 000	-65 000	-65 000	-65 000	-65 000	-65 000
Changes in short-term borrowings						
Free cash flow to equity (FCFE)	**-350 000**	**45 064**	**158 830**	**172 696**	**187 116**	**202 120**
Discounted free cash flow to equity (DFCFE)	-350 000	39 530	122 214	116 565	110 788	104 975
Cumulative discounted free cash flow to equity	-350 000	-310 470	-188 256	-71 691	39 097	144 071
Equity, increase (+) / decrease (-)	350 000	0	0	0	0	0
Total cash flow	**0**	**45 064**	**158 830**	**172 696**	**187 116**	**202 120**
Cumulative total cash flow	0	45 064	203 894	376 589	563 706	765 825

Note that Invest for Excel doesn't make a distinction between preferred stock and common stock so there's no separation of preferred dividends.

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Profitability analysis

The Profitability analysis is divided in two parts when FCFE based indicators are included:

PROFITABILITY ANALYSIS

Project description	**New flight route**				EUR
To Firm					
Nominal value of all investments		4 950 000	Discounted investments		4 950 000
Required rate of return		10,16 %			
Calculation term		10,0	years		1/2015 - 12/2024
Calculation point		1/2015	(In the beginning of period)		
Present value of business cash flows	Nominal	PV	Notes		
± PV of operative cash flow		5 703 599			
+ PV of residual value		452 742			
Present value of business cash flows		**6 156 341**			
- Present value of reinvestments	0	0			
Total Present Value (PV)		**6 156 341**			
Investment proposal	Nominal	PV			
- Proposed investments in assets	-4 950 000	-4 950 000			
+ Investment subventions	0	0			
Investment proposal	-4 950 000	-4 950 000			
Net Present Value (NPV)		**1 206 341**	>= 0	->	profitable
NPV as a monthly annuity		15 752			
Internal Rate of Return (IRR)		14,69 %	>= 10,16 %	->	profitable
Modified Internal Rate of Return (MIRR)		12,59 %	>= 10,16 %	->	profitable
Profitability Index (PI)		1,24	>= 1	->	profitable
Payback time, years		8,5	Based on discounted FCF		
Return on net assets (RONA), %		52,6 %	Average 10 years		
Economic Value Added (EVA)		223 401	Average 10 years		
Discounted Value Added (DCVA)		1 203 143			
Internal Rate of Return based on DCVA (IRRd)		14,75 %	>= 10,16 %	->	profitable
Modified Internal Rate of Return based on DCVA (MIRRd)		13,48 %	>= 10,16 %	->	profitable
Payback time, years, based on DCVA		6,5			
Cumulative discounted value added 1/2015->12/2020		-89 034			
Cumulative discounted value added 1/2015->12/2021		91 233			
Calculation point, Payback		1/2015			
To Equity					
Cost of Equity		20,00 %			
Discounted FCFE without residual value		379 931			
+ PV of residual value to equity		192 432			
- Debt residual correction		0			
Net Present Value to equity (NPVe)		**572 363**	>= 0	->	profitable
NPVe as a monthly annuity		10 450			
Internal Rate of Return to equity (IRRe)		27,63 %	>= 20 %	->	profitable
Modified Internal Rate of Return to equity (MIRRe)		24,88 %	>= 20 %	->	profitable
Payback time to equity, years		8,2	Based on discounted FCFE		
Calculation is made by	Jens Westerbladh				31.7.2014
Calculation file					

Free cash flow to equity-based indicators are shown in the "To Equity" part of the table.

4.1.3.1 Debt residual correction

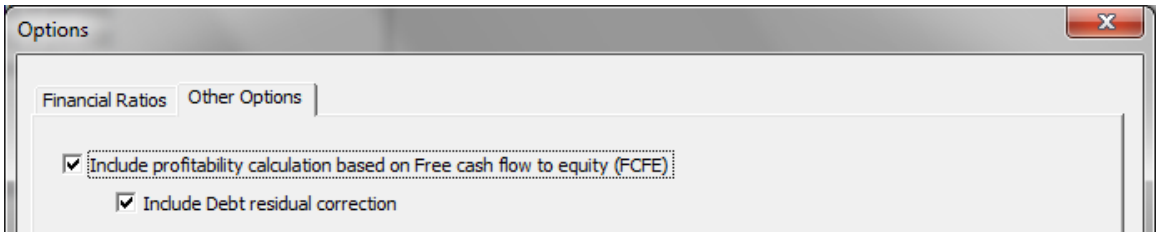
When free cash flow to equity based profitability indicators are calculated, the return can be too favourable if there is an outstanding long-term debt that has not been corrected for.

As an example, let's we are looking at a company with an expected outstanding interest-bearing long-term debt of 45000 at the end of the calculation term. No corrections have been done to the free cash flow to equity for this debt.

BALANCE SHEET

EUR	12/2010	12/2011	12/2012	12/2013	12/2014	Residual
Long-term liabilities	78 700	69 700	60 700	49 200	49 200	49 200
Interest-bearing long-term debt	72 000	63 000	54 000	45 000	45 000	45 000
Interest-free long-term debt	1 200	1 200	1 200	1 200	1 200	1 200

If the option "Include Debt residual correction" is checked in the Options dialog box, Invest for Excel will automatically correct for this debt residual. The option is checked by default in new calculation files.


Options
Financial Ratios
Other Options
Include profitability calculation based on Free cash flow to equity (FCFE)
Include Debt residual correction

The debt residual correction is shown in the Profitability analysis on the Result sheet discounted to the beginning of the calculation term (or other selected calculation point) by the Cost of Equity (45000 discounted 5 years by 15% = 22373).

To Equity	
Cost of Equity	15,00 %
Discounted FCFE without residual value	100 782
+ PV of residual value to equity	12 429
- Debt residual correction	-22 373
Net Present Value to equity (NPVe)	**90 838**

Note that if you have corrected for the debt residual in the Residual column, you should uncheck the "Include Debt residual correction" option in the Options dialog box.

Debt residual correction is only available for calculation files of version 3.6 or newer.

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4.1.4 DCVA-based profitability indicators

DCVA-based IRR (IRRd), MIRR (MIRRd) and Payback have been added to Profitability analysis.

WACC = discount rate entered in Basic values.

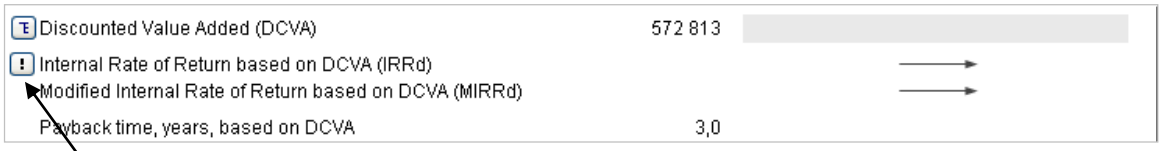
DCVA = sum of discounted yearly EVAs with capital cost based on WACC. The yearly EVAs are also disounted using WACC.

IRRd = the discount rate that gives DCVA = 0. Goal seek is applied for finding IRRd.

The cash flow used for calculating MIRRd is yearly EVAs with capital cost based on IRRd. MIRRd is calculated using the MIRR function using the WACC for both positive and negative EVAs.

Payback time, years, based on DCVA returns number of years from Calculation point, Payback until the time cumulative DCVA is and stays positive. Calculation point, Payback is by default the beginning of the calculation term.

IRRd and MIRRd are not calculated automatically but require manual refreshing.


Discounted Value Added (DCVA) 572 813
Internal Rate of Return based on DCVA (IRRd)
Modified Internal Rate of Return based on DCVA (MIRRd)
Payback time, years, based on DCVA 3,0

Press the ! button to refresh IRRd and MIRRd.

Discounted Value Added (DCVA) 572 813
Internal Rate of Return based on DCVA (IRRd) 20,78 % >= 7 % Invest!
Modified Internal Rate of Return based on DCVA (MIRRd) 48,60 % >= 7 % Invest!
Payback time, years, based on DCVA 3,0

IRRd and MIRRd are refreshed automatically when:
- Profitability analysis is printed from the home screen
- Result sheet is activated and the program option "Update analysis charts automatically" is activated.

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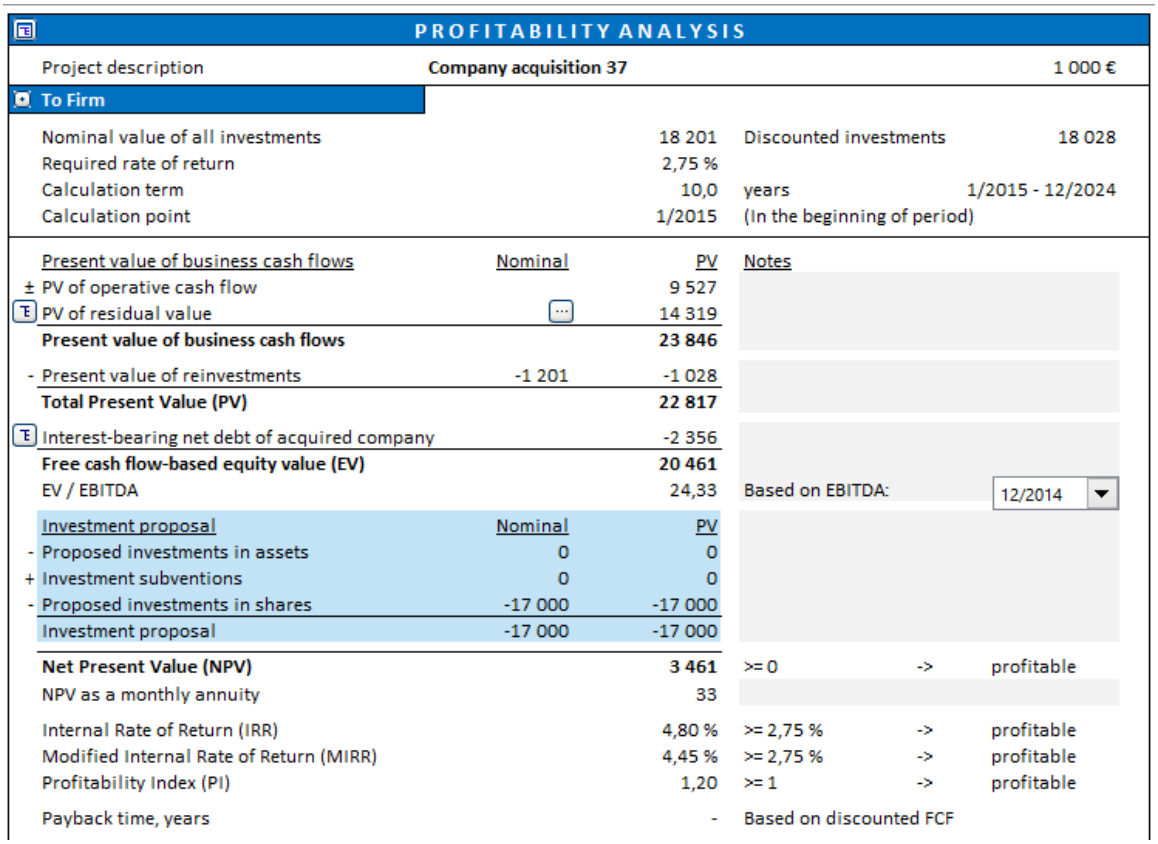
4.2 Profitability analysis in acquisition calculations

In acquisition calculations, **Interest-bearing net debt** of acquired company is subtracted from **PV**, and **Free cash flow-based equity value** is shown. Interest-bearing net debt of acquired company is calculated from pre-calculation term balance sheet. Definition: Cash and bank – interest bearing long-term debt – interest bearing short-term borrowings. Example: Cash and bank, 100 – interest bearing long-term debt, 120 – short-term borrowings, 60 – current portion of long-term loans, 30 = interest-bearing net debt of -110.

Note that interest-bearing net debt of acquired company changes the definition of NPV.

Proposed investments in shares are shown on a separate row in the investment proposal.



PROFITABILITY ANALYSIS					
Project description	**Company acquisition 37**				1 000 €
To Firm					
Nominal value of all investments		18 201	Discounted investments		18 028
Required rate of return		2,75 %			
Calculation term		10,0	years		1/2015 - 12/2024
Calculation point		1/2015	(In the beginning of period)		
Present value of business cash flows	Nominal	PV	Notes		
± PV of operative cash flow		9 527			
PV of residual value		14 319			
Present value of business cash flows		**23 846**			
- Present value of reinvestments	-1 201	-1 028			
Total Present Value (PV)		**22 817**			
Interest-bearing net debt of acquired company		-2 356			
Free cash flow-based equity value (EV)		**20 461**			
EV / EBITDA		24,33	Based on EBITDA:		12/2014
Investment proposal	Nominal	PV			
- Proposed investments in assets	0	0			
+ Investment subventions	0	0			
- Proposed investments in shares	-17 000	-17 000			
Investment proposal	-17 000	-17 000			
Net Present Value (NPV)		**3 461**	>= 0	->	profitable
NPV as a monthly annuity		33			
Internal Rate of Return (IRR)		4,80 %	>= 2,75 %	->	profitable
Modified Internal Rate of Return (MIRR)		4,45 %	>= 2,75 %	->	profitable
Profitability Index (PI)		1,20	>= 1	->	profitable
Payback time, years		-	Based on discounted FCF		

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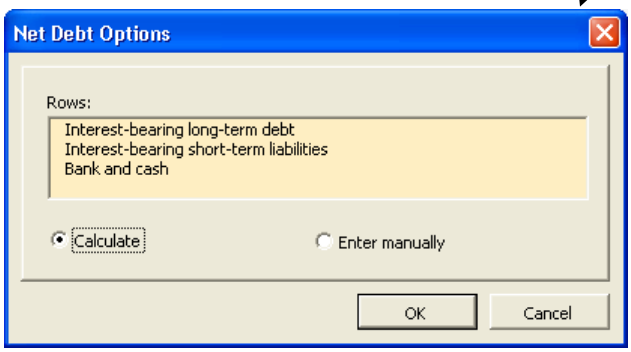
4.2.1 Specification of interest-bearing net debt

Specification of Interest-bearing net debt of acquired company has been added to profitability analysis in an corporate acquisition/valuation file. Enterprise edition only.

	Interest-bearing net debt of acquired company	-257 000
-	Interest-bearing long-term debt	-320 000
-	Interest-bearing short-term liabilities	-45 000
+	Bank and cash	120 000
±	Dividend debt	-12 000
±		
±		

You can choose if you want any precalculation or if you want to enter all items manually.



4.3 Profitability analysis in impairment calculations

Control value is calculated in the profitability analysis in an impairment test calculation.

Impairment test	**31.12.2006**
Book value of assets (A)	705 000
Value in use (B)	612 121
Impairment loss (B - A)	**-92 879**

For more information about impairment testing see chapter 11 ‘Impairment testing and IFRS functionality’.

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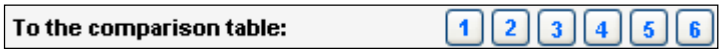
4.4 Comparison table

The following buttons above the Results table lead to the **Comparison Table** file:



Use these buttons to copy the result of the investment calculation to a comparison table.

If you are creating a new comparison table file you will be asked to name it and save it. Comparison Tables are in separate files, and you can use them independently.

If you cannot remember to which section (from 1 to 6) you may already have transferred data, you can safely look for a blank one. If the column already contains data, the program first makes sure that you want to overwrite it. You can compare up to six different investment alternatives:

	2	3	4	5
Hide Empty / Show All	PROFITABILITY COMPARISON			
Figures	EUR	EUR	EUR	EUR
Project description	New flight route, nominal	New flight route, nominal	New flight route, nominal	New flight route
Nominal value of all investments	4 700 000	4 950 000	4 950 000	4 950 000
Required rate of return	10,16%	10,16%	10,16%	10,16%
Calculation term (years)	10,0	10,0	10,0	10,0
Calculation term	1/2015 - 12/2024	1/2015 - 12/2024	1/2015 - 12/2024	1/2015 - 12/2024
Calculation point	1/2015	1/2015	1/2015	1/2015
Interval length (months)	12	12	12	12
PV of operative cash flow	5 581 858	5 695 520	5 898 706	5 657 464
PV of residual value	324 235	498 451	356 659	473 615
Present value of business cash flows	5 906 093	6 193 971	6 255 365	6 131 079
Present value of reinvestments	0	0	0	0
Total Present Value (PV)	**5 906 093**	**6 193 971**	**6 255 365**	**6 131 079**
Proposed investments in assets	-4 700 000	-4 950 000	-4 950 000	-4 950 000
Investment subventions	0	0	0	0
Investment proposal	-4 700 000	-4 950 000	-4 950 000	-4 950 000
Net Present Value (NPV)	**1 206 093**	**1 243 971**	**1 305 365**	**1 181 079**
NPV as a monthly annuity	15 749	16 244	17 045	15 423
Internal Rate of Return (IRR)	14,92 %	14,73 %	15,22 %	14,57 %
Modified Internal Rate of Return (MIRR)	12,71 %	12,66 %	12,77 %	12,54 %
Profitability Index (PI)	1,26	1,25	1,26	1,24
Payback time, years	8,3	8,5	8,1	8,5
Calculation point, Payback	1/2015	1/2015	1/2015	1/2015
Return on net assets (RONA), %	90,70 %	66,47 %	80,70 %	49,32 %
Economic Value Added (EVA)	262 333	199 846	221 859	198 056
Discounted Value Added (DCVA)	1 351 798	1 090 102	1 156 375	1 019 834
Payback time, years, based on DCVA	6,2	7,8	6,9	7,4
Calculation is made by	Jens Westerbladh	Jens Westerbladh	Jens Westerbladh	Jens Westerbladh
Date	31.7.2014	31.7.2014	31.7.2014	31.7.2014
Comment		New Jet engines	Sale & leasback	USD simulation

Get figures from your investment calculation by clicking the exclamation mark button in the top left corner. When you have more than one calculation open, you can choose from which calculation file you want to transfer figures to the column in question.

Please, note the following decision-making rules when comparing alternative investments:

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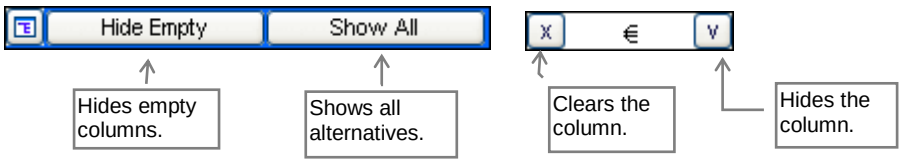
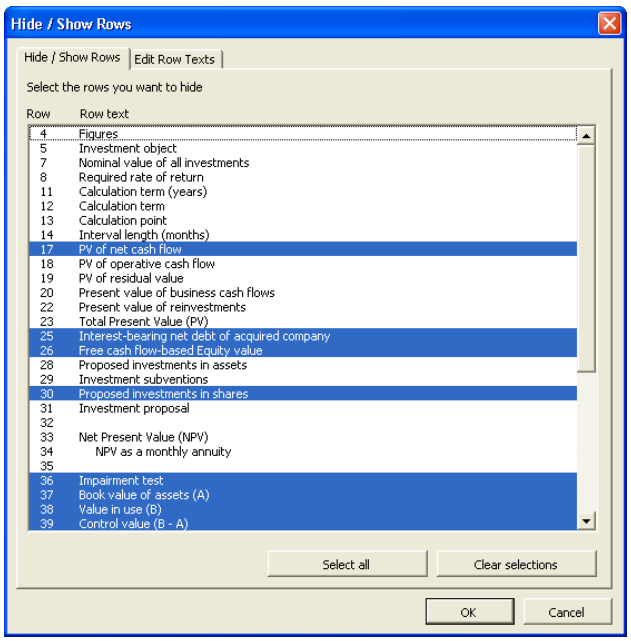
Net present value (NPV):	NPV is an indicator of how much value an investment or project adds to the firm. The higher the NPV, the better. NPV should be used together with other indicators, like IRR/MIRR/PI and Payback to get a wider perspective.
Monthly annuity:	The higher the monthly annuity, the better the investment is. Monthly annuity can be used to compare alternative calculations with different investment terms. Should not be used standalone.
Internal rate of return (IRR):	The higher IRR, the better the investment is.
Modified IRR:	The higher MIRR, the better the investment is.
Profitability Index (PI):	The higher PI, the better the investment is.
Payback time (discounted):	The shorter payback time, the better. (Can be ambiguous).

Never base a decision on one indicator only. NPV is considered the most important indicator, but when comparing different projects it doesn't necessarily reflect the size of the investments. IRR, MIRR and PI show the relative profitability and Payback shows the timing. When comparing investments of different terms, you should rather use the monthly NPV annuity than NPV. It is important that the compared calculations are based on the same assumptions, so that the comparison makes sense.

For printing purposes, use the following buttons to hide (and restore) the alternatives you want:



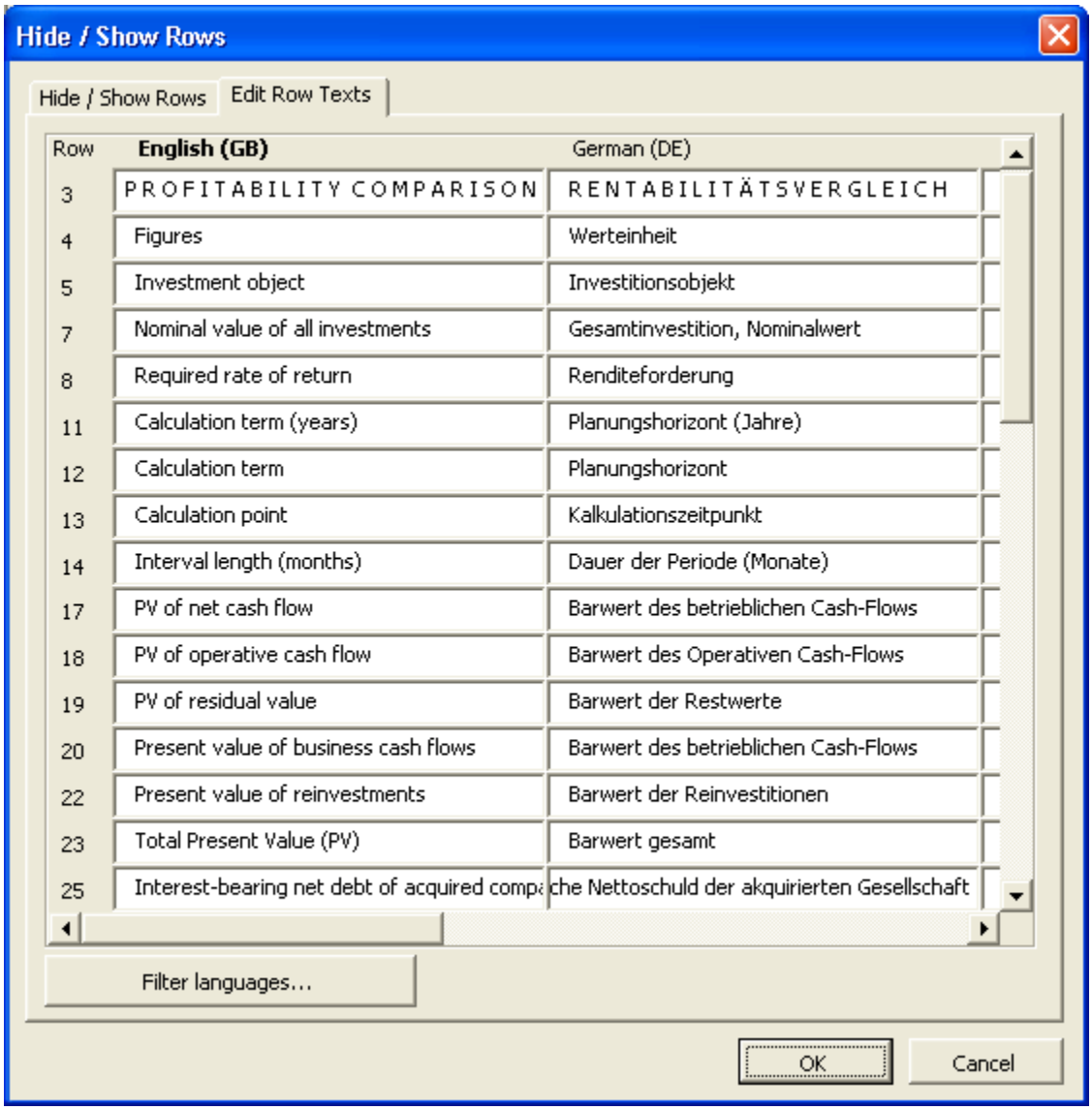
By clicking button, a dialog will open where you can select rows to hide or show:


Hide / Show Rows
Hide / Show Rows
Edit Row Texts
Select the rows you want to hide
Row
Row text
4 Figures
5 Investment object
7 Nominal value of all investments
8 Required rate of return
11 Calculation term (years)
12 Calculation term
13 Calculation point
14 Interval length (months)
17 PV of net cash flow
18 PV of operative cash flow
19 PV of residual value
20 Present value of business cash flows
22 Present value of reinvestments
23 Total Present Value (PV)
25 Interest-bearing net debt of acquired company
26 Free cash flow-based Equity value
28 Proposed investments in assets
29 Investment subventions
30 Proposed investments in shares
31 Investment proposal
32
33 Net Present Value (NPV)
34 NPV as a monthly annuity
35
36 Impairment test
37 Book value of assets (A)
38 Value in use (B)
39 Control value (B - A)
Select all
Clear selections
OK
Cancel

4.4.1 Edit Profitability comparison texts

Profitability comparison row texts can be edited in all available languages.

Press the button in the top left corner of the Profitability comparison table. Select the Edit Row Texts tab to edit row texts.


Hide / Show Rows
Hide / Show Rows
Edit Row Texts
Row
English (GB)
German (DE)
3 PROFITABILITY COMPARISON RENTABILITÄTSVERGLEICH
4 Figures Werteinheit
5 Investment object Investitionsobjekt
7 Nominal value of all investments Gesamtinvestition, Nominalwert
8 Required rate of return Renditeforderung
11 Calculation term (years) Planungshorizont (Jahre)
12 Calculation term Planungshorizont
13 Calculation point Kalkulationszeitpunkt
14 Interval length (months) Dauer der Periode (Monate)
17 PV of net cash flow Barwert des betrieblichen Cash-Flows
18 PV of operative cash flow Barwert des Operativen Cash-Flows
19 PV of residual value Barwert der Restwerte
20 Present value of business cash flows Barwert des betrieblichen Cash-Flows
22 Present value of reinvestments Barwert der Reinvestitionen
23 Total Present Value (PV) Barwert gesamt
25 Interest-bearing net debt of acquired compa che Nettoschuld der akquirierten Gesellschaft
Filter languages...
OK
Cancel

Use the tabs at the bottom of the page, the buttons in the Home screen, or the Invest for Excel menu, to access the charts.

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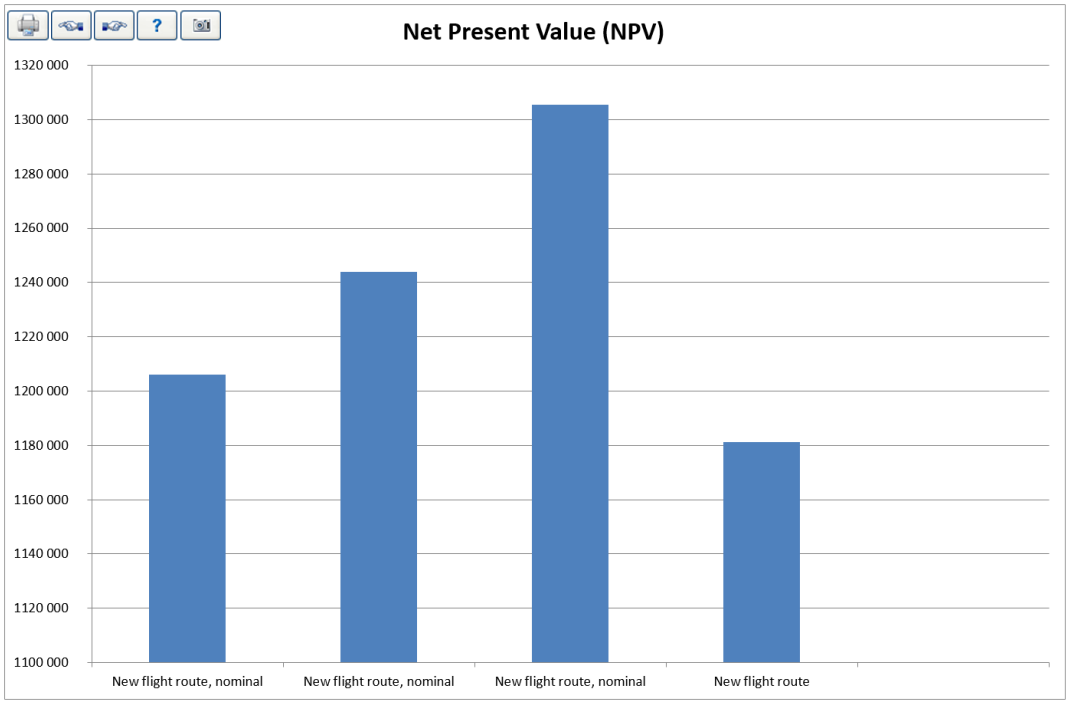
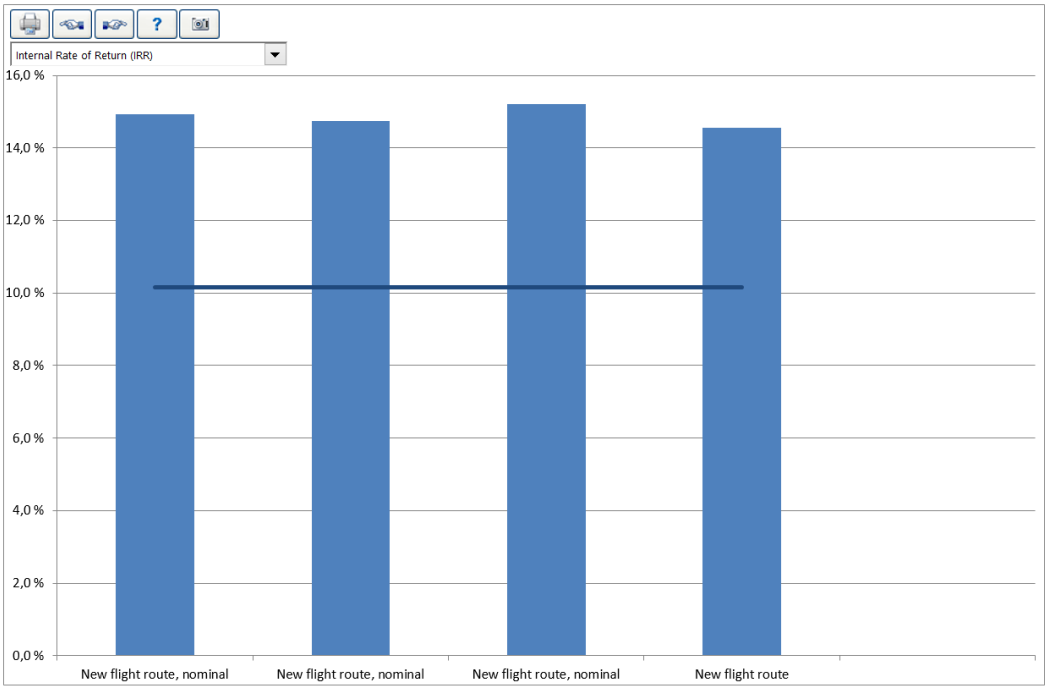
4.4.2 NPV chart

The net present values of the investment alternatives:



4.4.3 IRR chart

Internal rates of return on the investment alternatives. Choose conventional IRR, IRR before tax or modified IRR. The bold line marks the required rate of return of each alternative:



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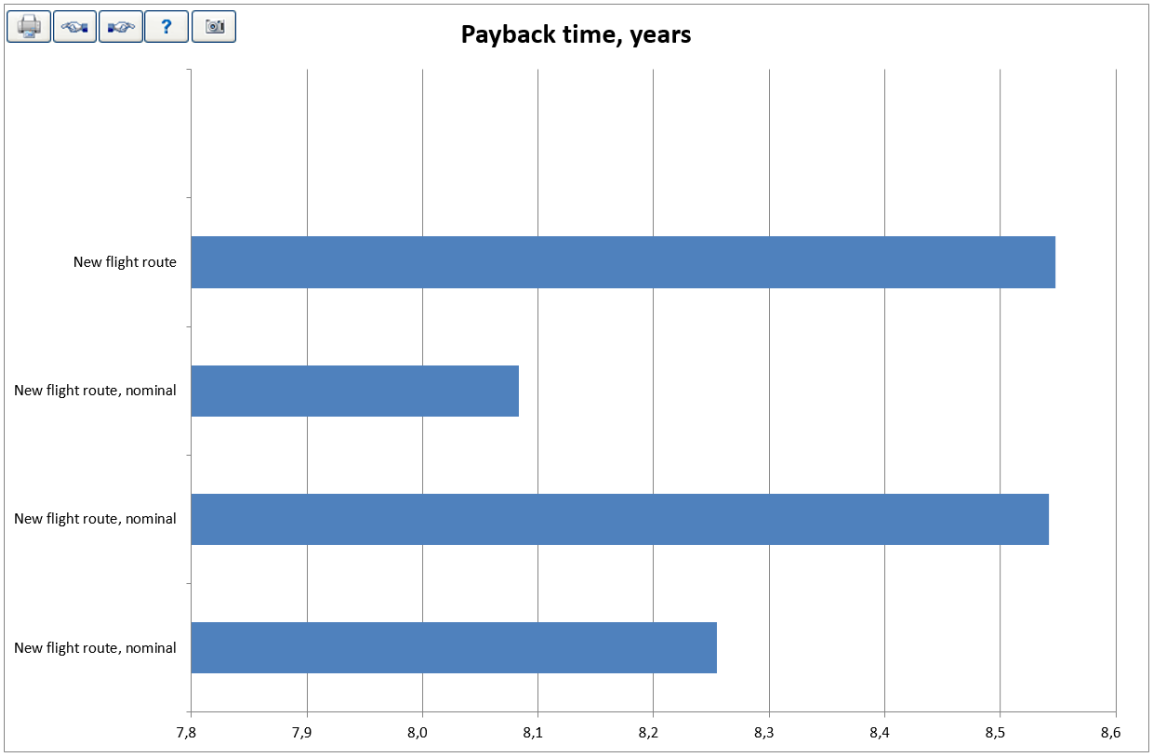
The higher the IRR, the better the investment is.

4.4.4 Payback chart

The payback times of investment alternatives:



The shorter payback time, the better (can sometimes be ambiguous).

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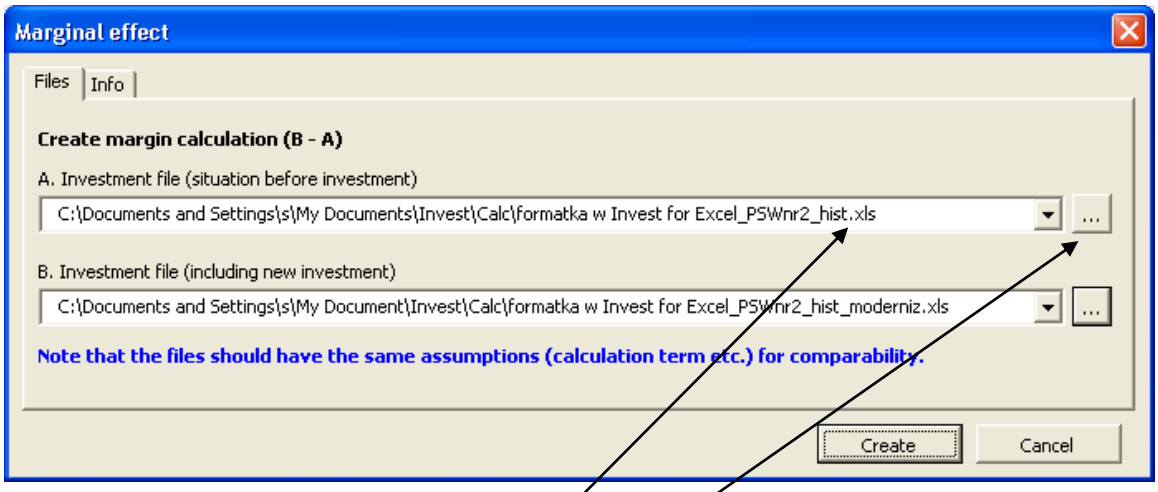
4.5 Marginal effect

You can calculate if a new investment is more profitable compared to the current situation by creating a Marginal effect calculation. Create two separate calculations of equal calculation term and with same basic assumptions (discount rate, tax percent etc.).

First, create an investment calculation describing the current situation, i.e. a 'Status quo' calculation. Enter this calculation as file A in the Marginal effect dialog.

Use the Status quo calculation as basis for the second investment calculation and add effects of the new investment. Enter this calculation as file B in the Marginal effect dialog.

You can start the Marginal effect creation from the home screen or the "Result" –menu.


Marginal effect
Files
Info
Create margin calculation (B - A)
A. Investment file (situation before investment)
C:\Documents and Settings\s\My Documents\Invest\Calc\formatka w Invest for Excel_PSWnr2_hist.xls
...
B. Investment file (including new investment)
C:\Documents and Settings\s\My Document\Invest\Calc\formatka w Invest for Excel_PSWnr2_hist_moderniz.xls
...
Note that the files should have the same assumptions (calculation term etc.) for comparability.
Create
Cancel

You can select open calculations from the drop-down list or alternatively open an existing investment calculation from any folder with the browse button.

Start creating by pressing the 'Create' button.

If you want to include sub rows in the Income Statement of the marginal calculation, you need to define specific template with these sub rows.

4.5.1 Assumptions used in a Marginal effect

- The source calculations have been created with the same basic assumptions (unit, currency, income tax-%, include positive tax effects and discount factor).
- Basic values and balance fixed assets grouping are written to the Marginal effect from the first source calculation, defined as "A".
- Specification rows (first level) are included if operators "*" or "/" have not been used. If operators "*" or "/" have been used, the margin value is calculated to the header row.
- Taxes are calculated using the tax percent in the basic values.
- Custom templates can be used for Marginal effects.

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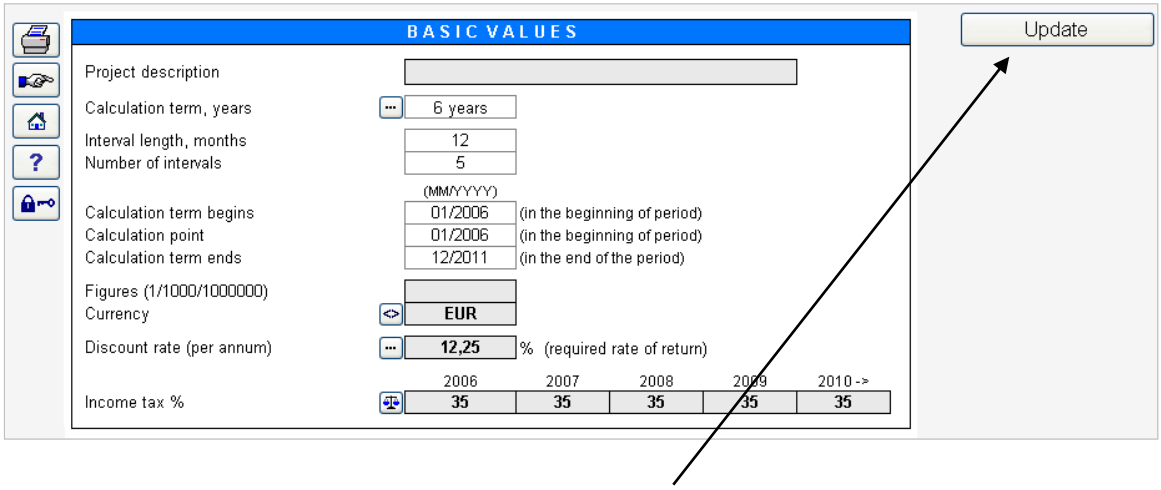
4.5.2 Updating a Marginal effect calculation

The Marginal effect works like any investment calculation, and it can be used as a starting point for a new calculation.



You can update the Marginal effect with the “Update” button on the basic values sheet in case the source calculations have changed. NOTE! If the calculation is updated from the source files, any manual changes will be undone.

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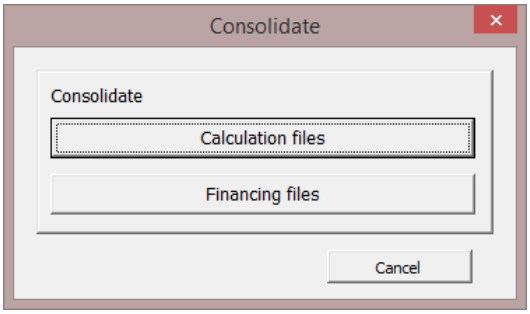
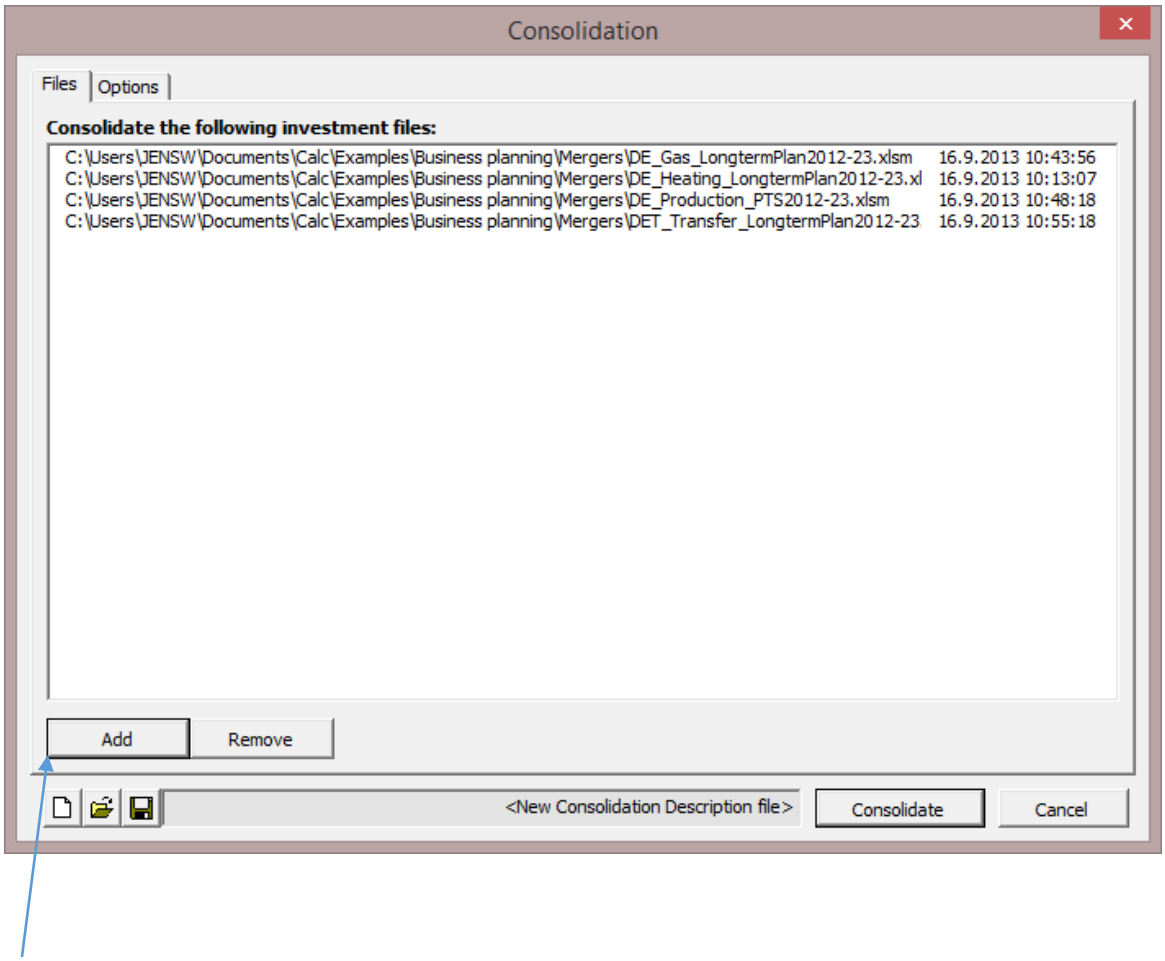
4.6 Consolidation

The Consolidation summarizes several workbooks and creates a new workbook based on them.



First you select type of consolidation (usually 'Calculation files'):



Press "Add…" to choose the files you want to consolidate.

The chosen files can be saved as a consolidation description (*.dsc) for later use. Open and save the consolidation description file with the "open" and "save" buttons: .

The "new" button clears the file list.

Start the consolidation by pressing the 'Consolidate' button.

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NOTE! The consolidation may, depending on the number of source files, take several minutes.

The program proposes that you name and save the new consolidation file.

4.6.1 Assumptions used in consolidation

- The source calculations have been created with the same assumptions for income tax-%, include positive tax effects and discount factor.
- Basic values are written to the consolidated file from the first source calculation.
- By default the consolidation file is created on annual basis except for the beginning and the end of the term, regardless of periods used in the source file.
- Investments are grouped by the Balance sheet fixed asset types in the investment table.
- Incomes and costs are summed to the main row level, leaving the yellow specifications- and detailed specification rows out.
- Income tax is summed from source files. Income tax option (button in Basic values) Tax calculated automatically can be activated to calculate income tax in the consolidated file.

4.6.2 Investment summary and consolidation info

Two additional sheets are created to the consolidated file:

Investment summary

Shows Investments, Subventions, Net investment (investment+subvention), Depreciation time and Depreciation for the first four years of the consolidated files. The following fields are for entering additional information:

Field	Explanation
Cost center	Cost center or other organization id
Account	Account number
Prio	Priority
Responsibility	Responsibility coding
Info	Information field
Investment year	Year of the initial investment
Completed	Investment completed
Depr. /year	Depreciation per year
Comments	Comments

Consolidation info

Shows Calculation file path, Description, Term, User, Date, Total investment, Discount factor, NPV, Unit, Currency of the consolidated files.

The calculation file path is a hyperlink. Clicking it will open the file.

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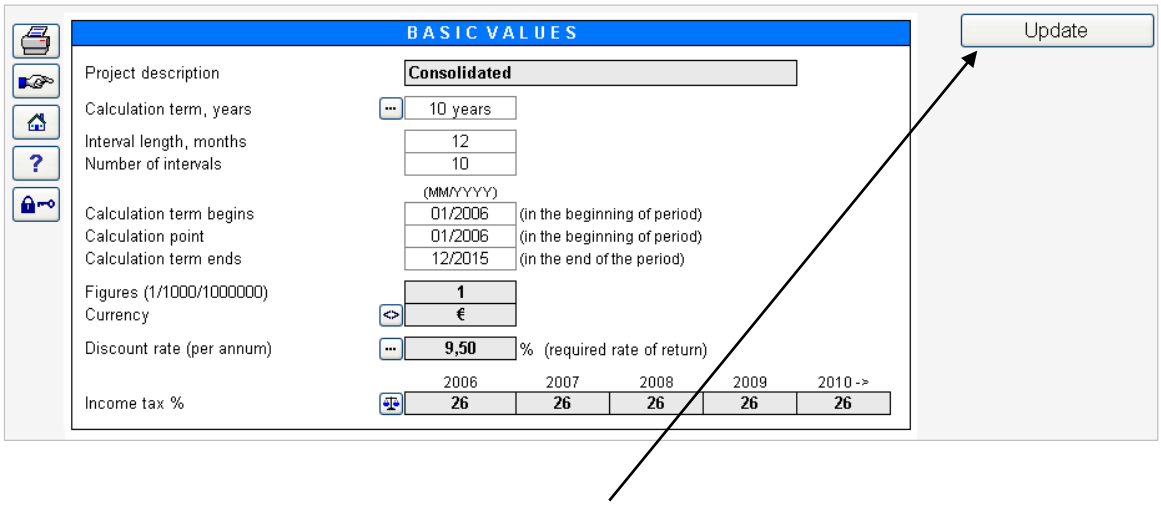
4.6.3 Updating the consolidated file

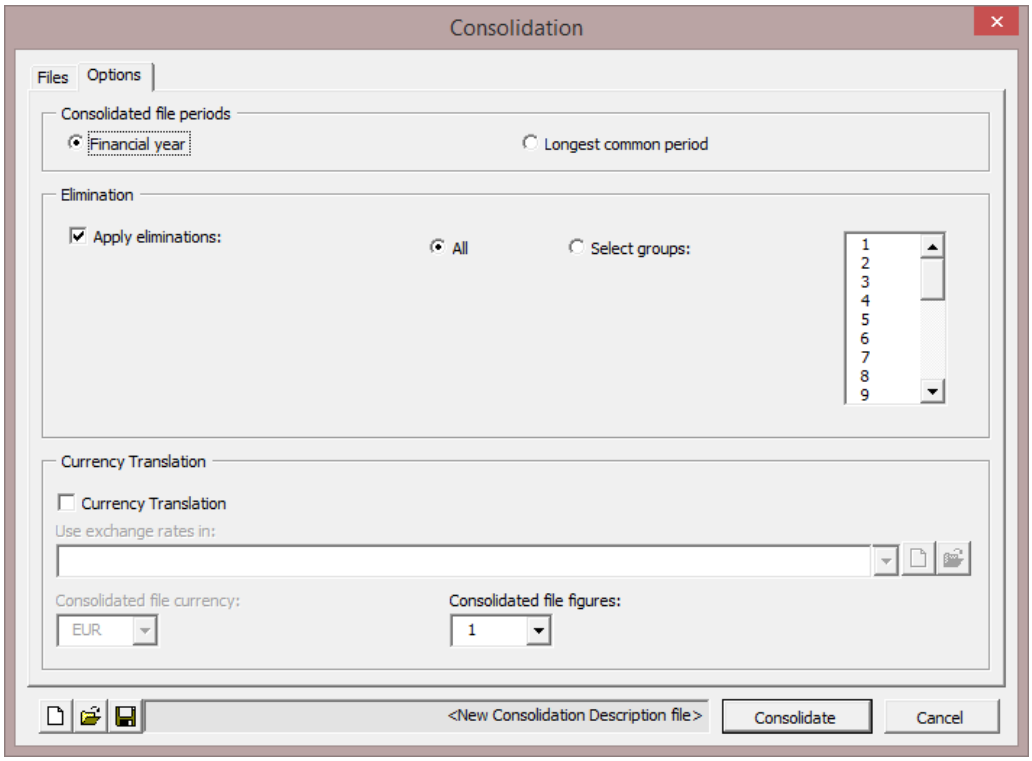
The consolidated file works like any investment calculation, and it can be used as a starting point for a new calculation.



You can update the consolidation file with the “Update” button if you make any changes to the source files. NOTE! If the calculation is updated from the source files, any manual changes will be undone.

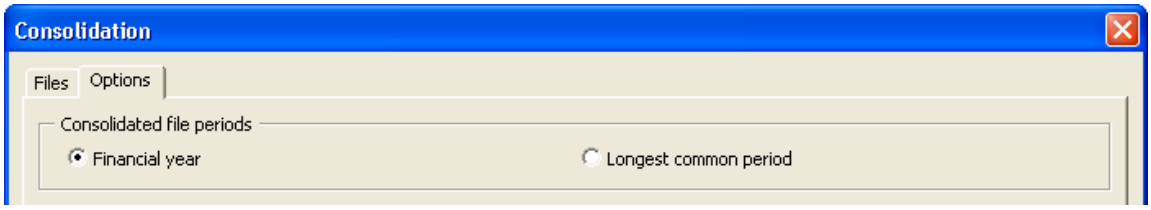
4.6.4 Consolidation Options

Pressing the ‘Options’ tab reveals more consolidation functionality:



4.6.4.1 Consolidation file periods

Periods in the consolidated file are defined in the "Options" tab.



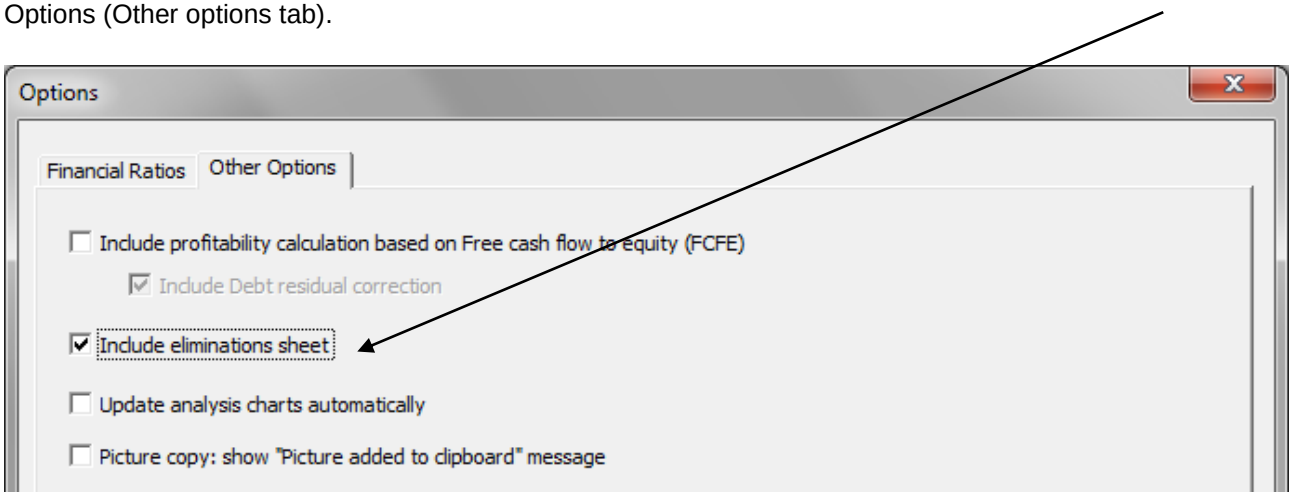
Financial year	Periods are summed to financial years, regardless of what periodization is used in the source files.
Longest common period	Source file periods define periods used in the consolidated file. If quarters are used in the source file, the consolidated file will be in quarters. If the source file periods differ, the longest common period is used. Example:

Source file A	01/2005	02/2005	03/2005	04/2005	05/2005	06/2005	09/2005
Source file B	01/2005		03/2005				09/2005
Source file C			03/2005			06/2005	09/2005
Consolidated file			**03/2005**				**09/2005**

4.6.4.2 Elimination of internal transactions

Elimination is available in Enterprise edition for consolidation of calculation files. The elimination function removes the effects of inter-company transactions in a consolidation statement.

When consolidating calculation files, it is possible to apply eliminations of internal transactions. Eliminations can be specified on a separate sheet, which can be included in the Invest for Excel Options (Other options tab).


Options
Financial Ratios
Other Options
Include profitability calculation based on Free cash flow to equity (FCFE)
Include Debt residual correction
Include eliminations sheet
Update analysis charts automatically
Picture copy: show "Picture added to clipboard" message

An empty Eliminations sheet is included in the calculation file.

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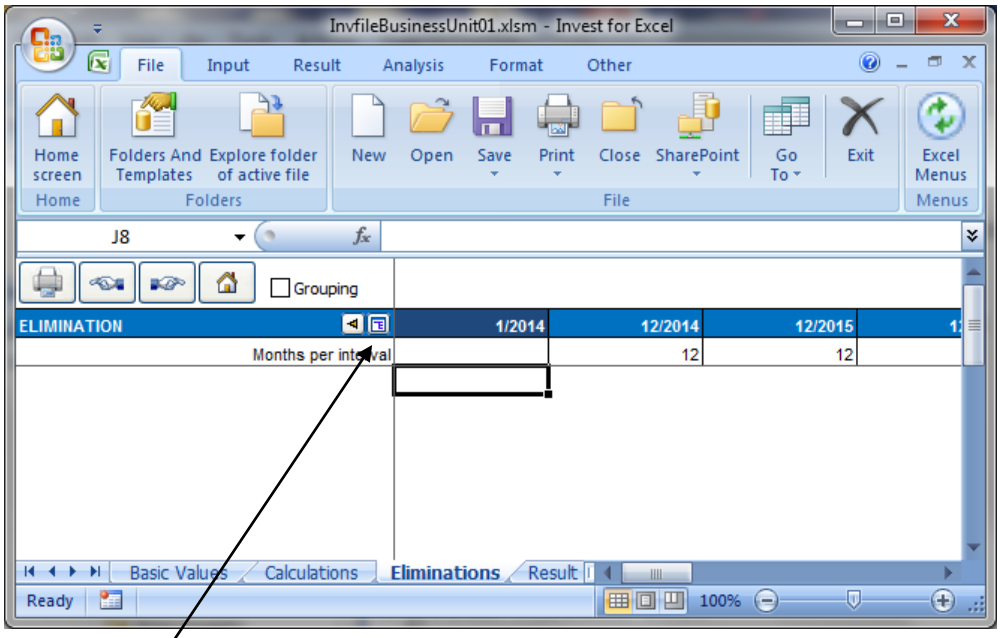
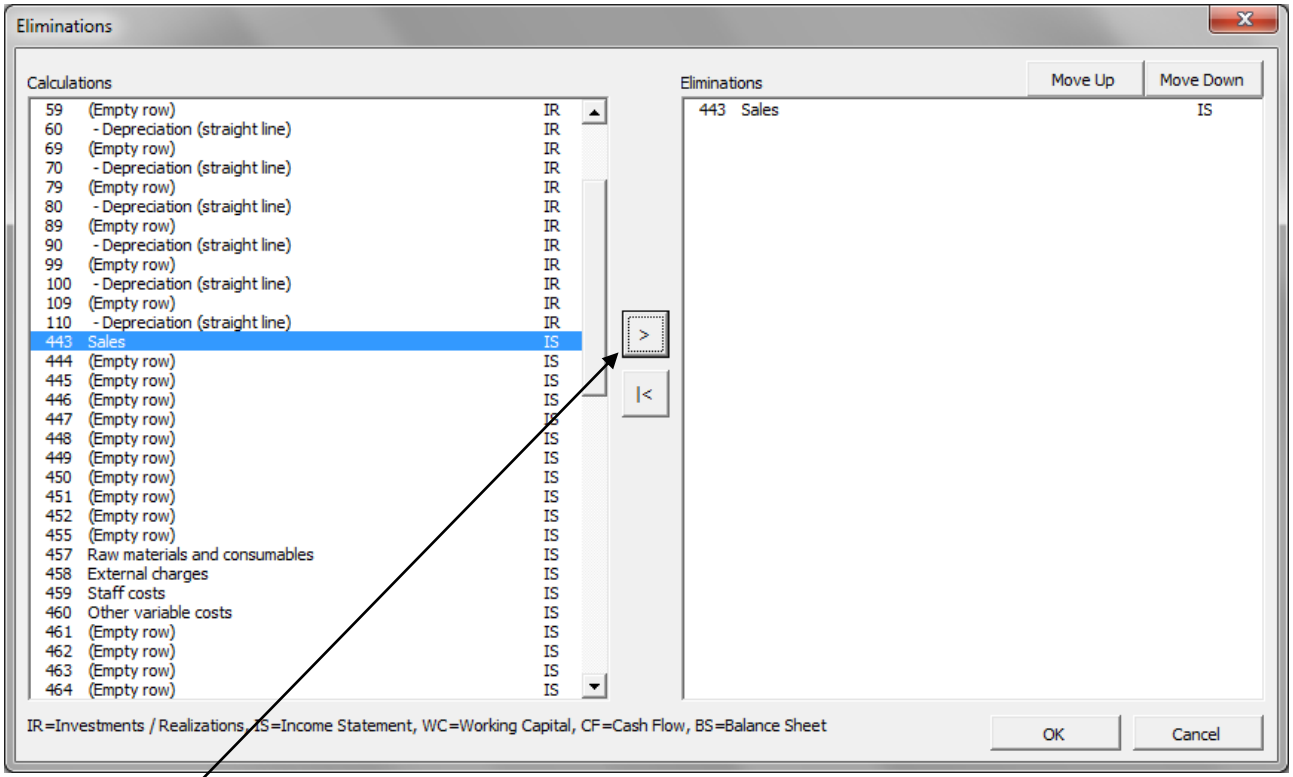


Press the button to select the calculation row, which corresponds to the elimination you want to add. A select screen for choosing Calculation rows is shown:



Press the > button to include one or more rows and press OK when you are done. Selected rows will be added to the sheet for entering eliminations. You can include the same row as many times as you like.

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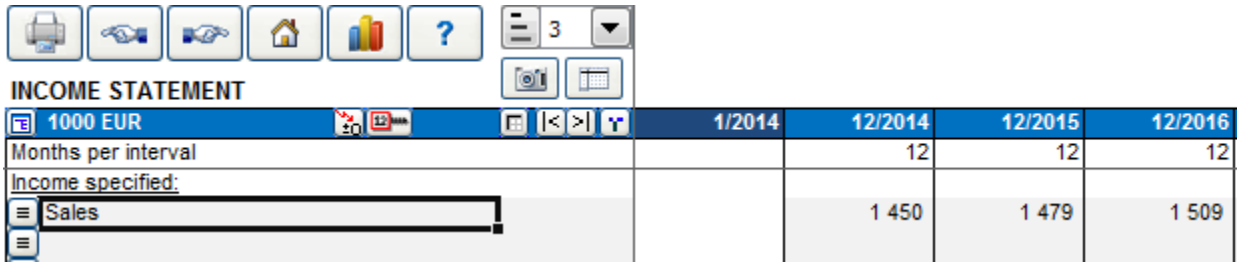
ELIMINATION	1/2014	12/2014	12/2015	12/2016
Months per interval		12	12	12
Sales	0,00	1 450,00	1 479,00	1 508,58
Elimination				
Consolidated Sales	0,00	1 450,00	1 479,00	1 508,58

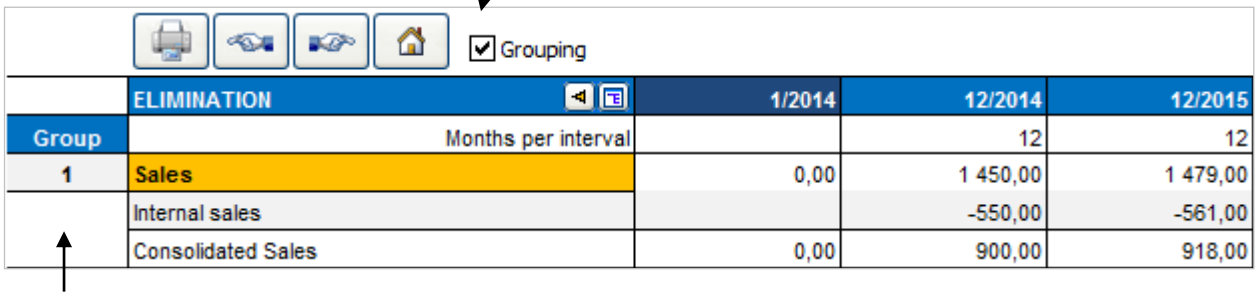
You can change the elimination row description if you like and then enter the eliminations.

ELIMINATION	1/2014	12/2014	12/2015	12/2016
Months per interval		12	12	12
Sales	0,00	1 450,00	1 479,00	1 508,58
Internal sales		-550,00	-561,00	-572,22
Consolidated Sales	0,00	900,00	918,00	936,36

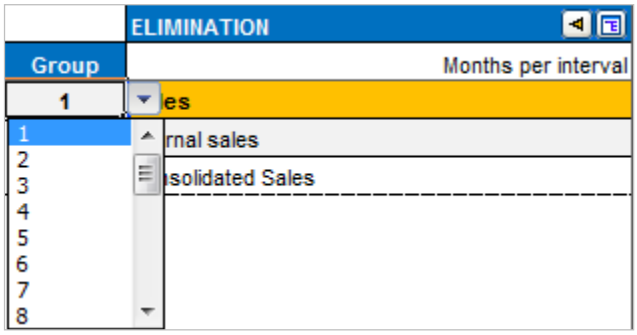
By pressing the button you can move to the corresponding row on the Calculations sheet.



You can use grouping of eliminations as a means to apply only part of entered eliminations when consolidating by checking Grouping.



A Group column appears to left. You choose from to 25 groups of eliminations.



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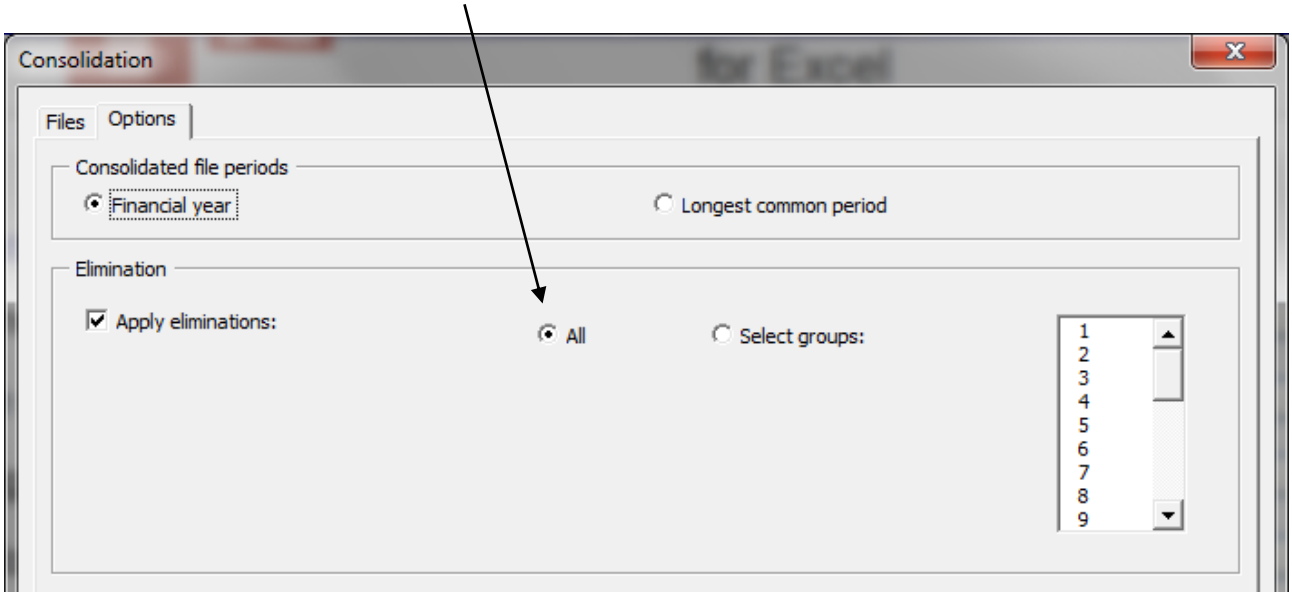
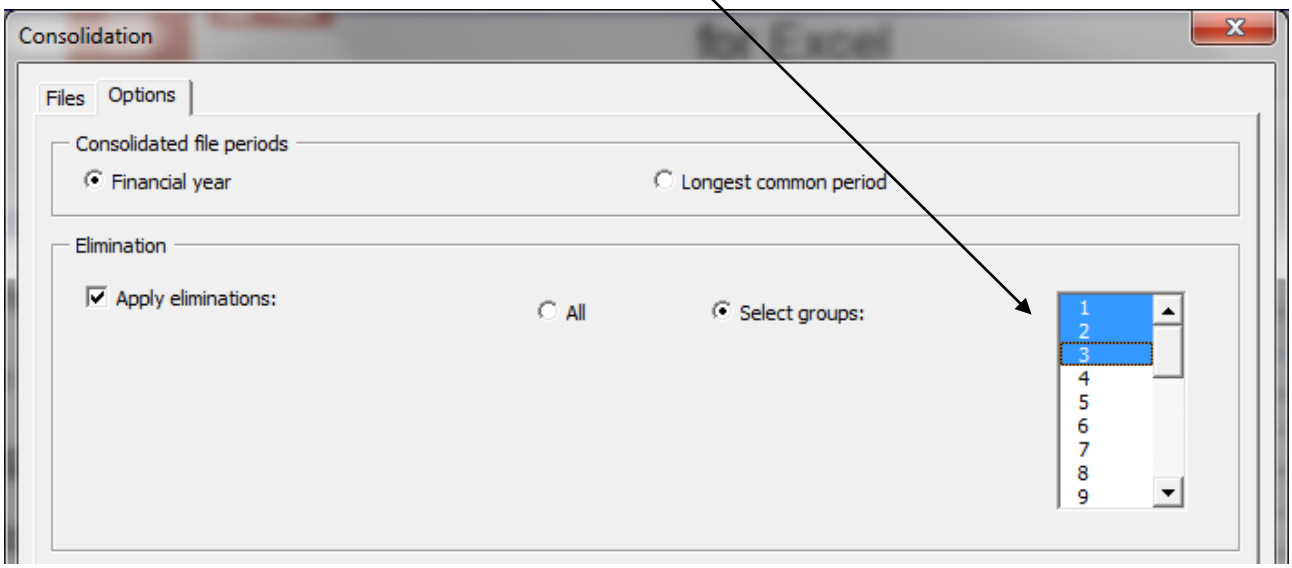
Grouping is useful when you are consolidating different parts or levels of an organisation. You could apply group 1 eliminations when consolidating from lowest level units to the an next level unit and all groups when consolidating to the highest level unit.

Note that you can include same rows several times and use different elimination groups. This way the elimination of one calculation number can be different for different consolidations.

Eliminations options in consolidation are found in the Options tab of the Consolidation dialog box. By default all eliminations are applied.



You can choose to apply only selected groups of eliminations when you are doing a partial consolidation.



In the Invest for Excel menus, Eliminations can be found in the Input page:

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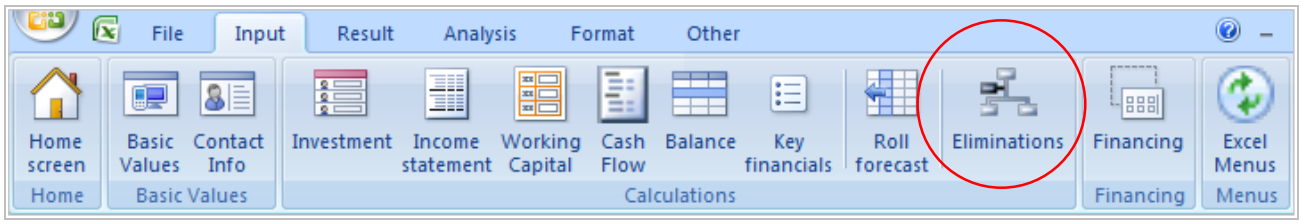
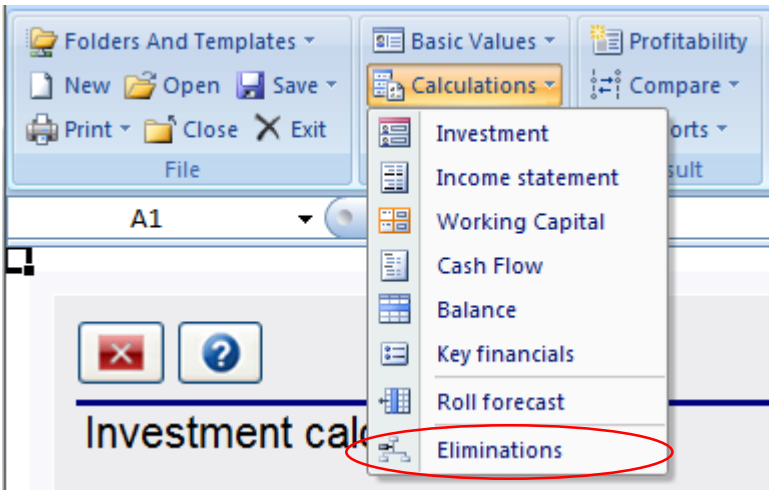


In the short menu:



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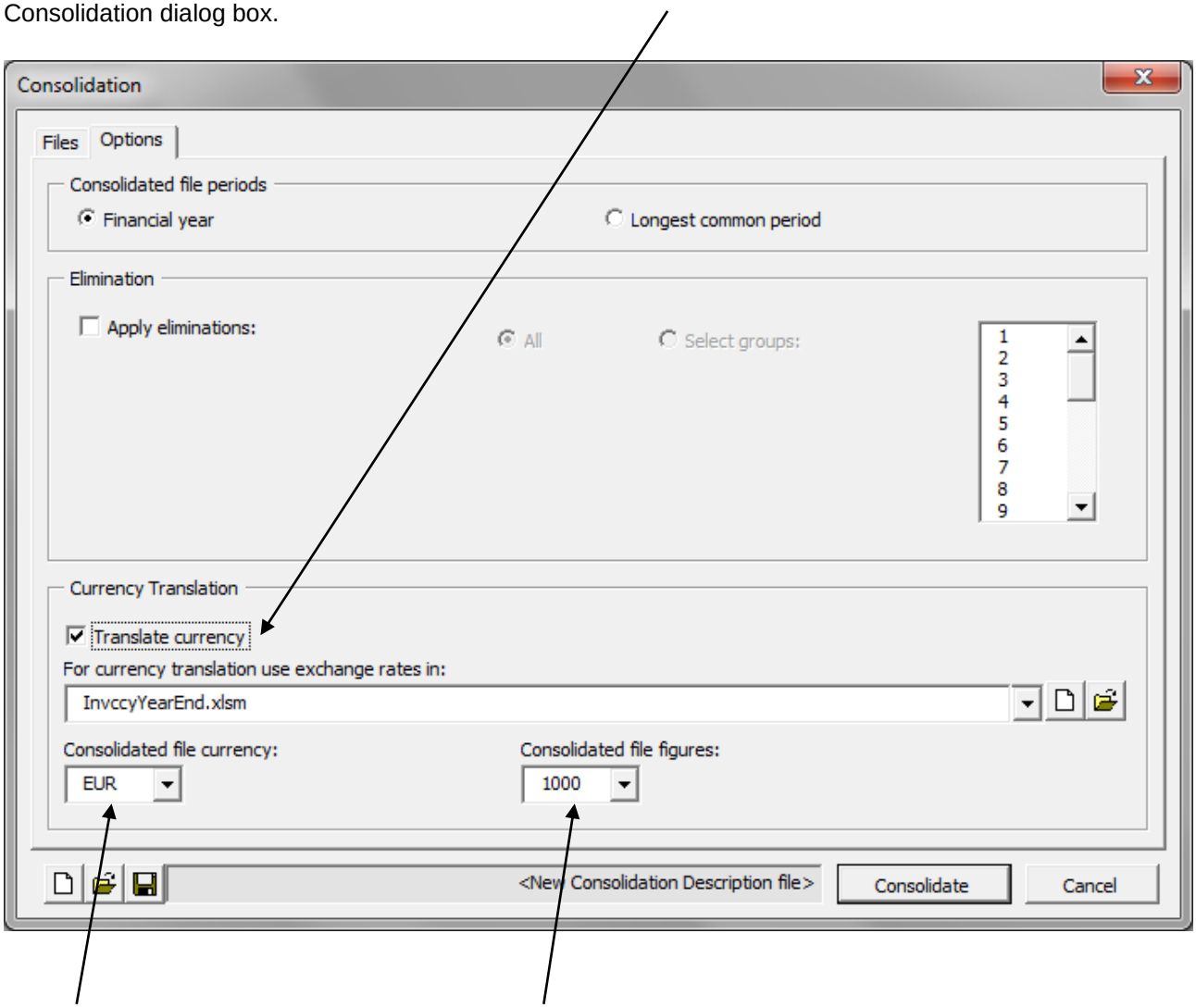
4.6.4.3 Consolidation with currency translation

To consolidate with currency translation, check Translate currency in the Options tab of the Consolidation dialog box.



Specify the currency file to use when translating currencies and specify consolidated file currency and the unit in which to show figures.

Note that each consolidated source files must have currency specified in the basic values.

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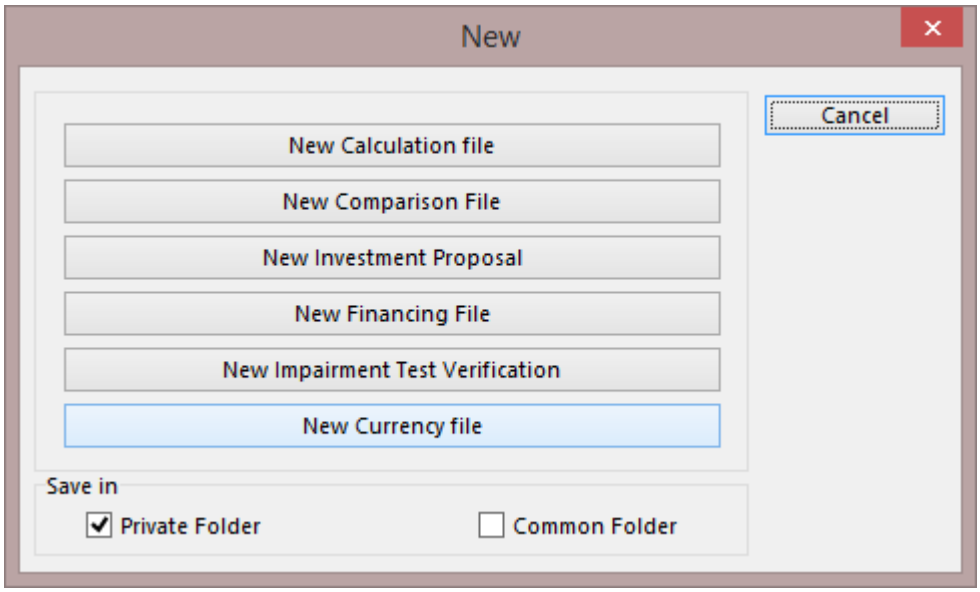
4.6.5 Currency file

Currency translation is available in Enterprise edition for consolidation of calculation files and financing files. A currency file can be used to handle currency translation rates.

To create a new Currency file, choose “New” in the Invest File menu. Choose “New Currency File” in the opening dialog box:



A new currency file while will open:

	Currency translation rates			
	Currency	Rate		Refresh date
Reference	EUR	1,000000	EUR/EUR	
	USD	1,341500	USD/EUR	13.11.2013
	JPY	133,270000	JPY/EUR	13.11.2013

You can enter the currency translation rates manually or update the rates from the European Central Bank web service by clicking the ! button. Note that all rates that are found in the European Central Bank web service will automatically be updated. *(Note that, for this to work, you need to be connected to internet and Microsoft Excel must be allowed to run internet queries.)*

A new currency file can also be created from the Consolidation dialog boxes

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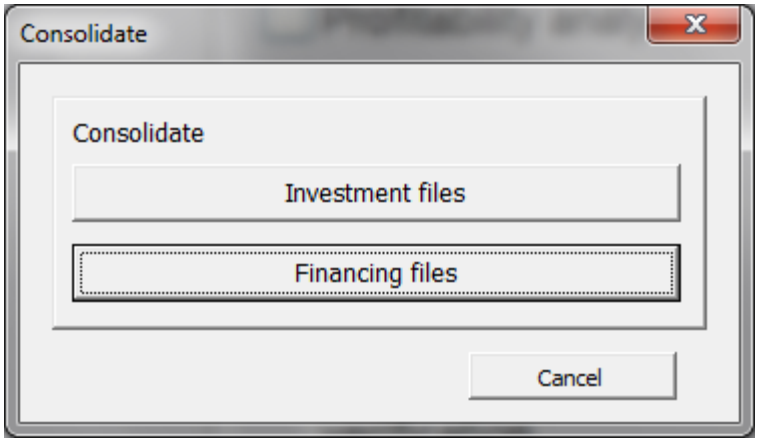
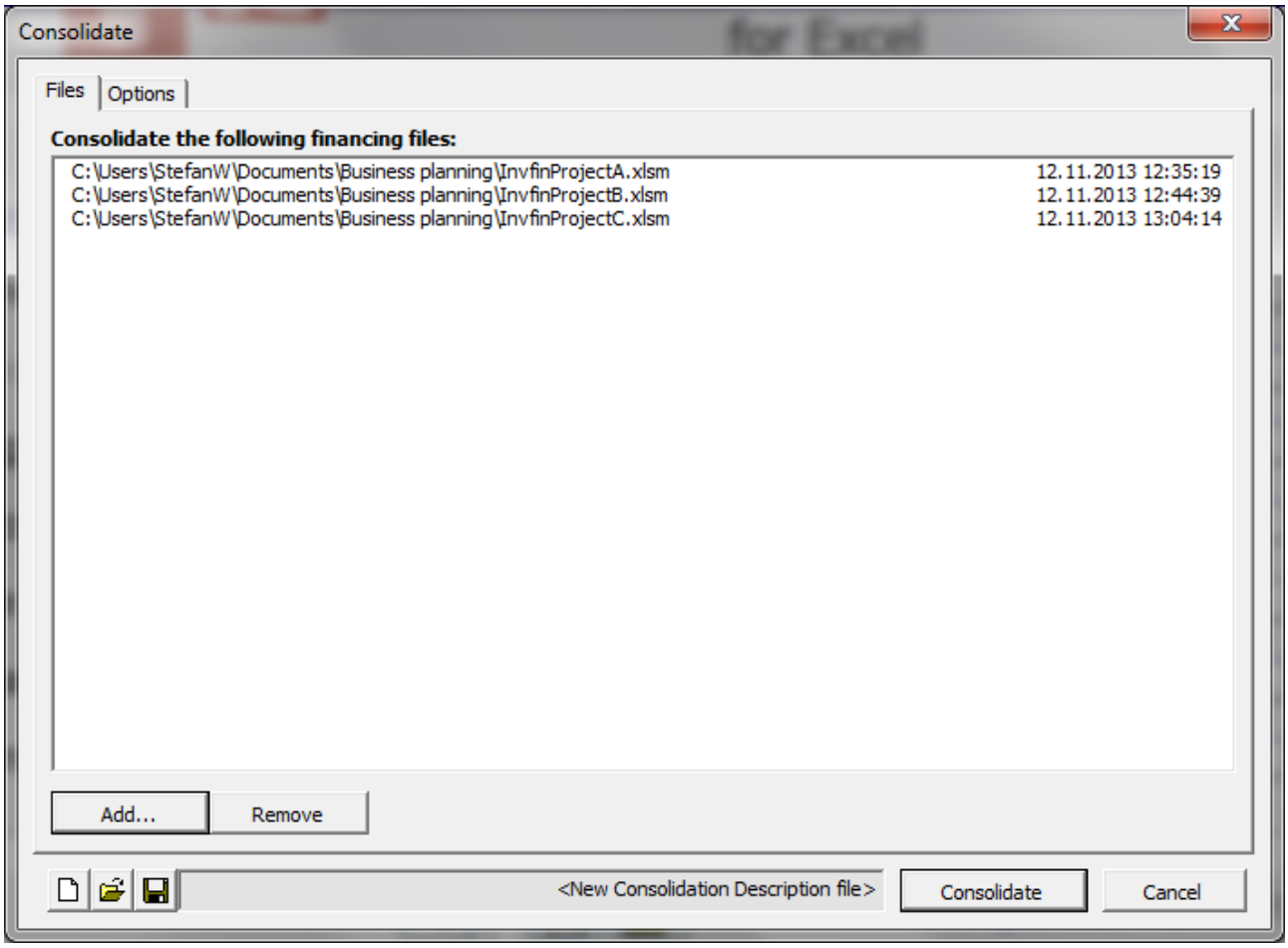
4.6.6 Consolidation of financing files

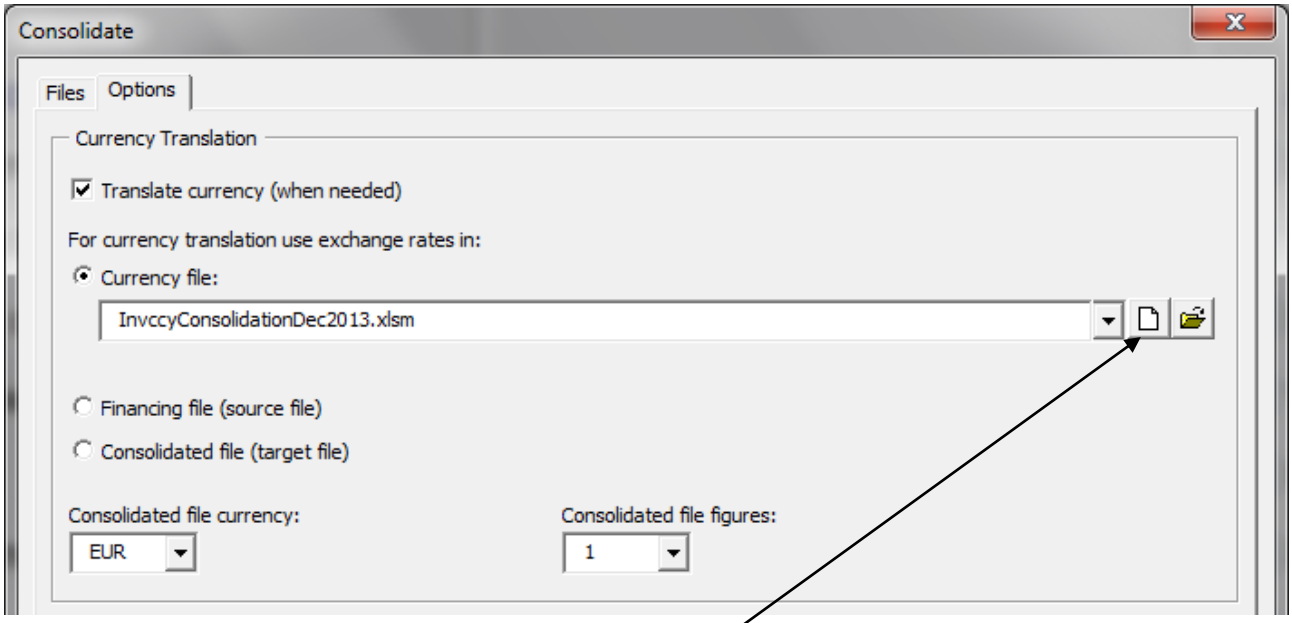
To consolidate financing files, press “Financing files” in the “Consolidate” dialog box:



Press “Add…” in the “Consolidate” dialog box to add the files you want to consolidate:



In the Options page you can choose Currency translation. Check “Translate currency”:



For currency translation you can use exchange rates in:

- a Currency file. When **new Currency file** is chosen, a new currency file is created and the rates are automatically refreshed from the European Central Bank web service. *(Note that, for this to work, you need to be connected to internet and Microsoft Excel must be allowed to run internet queries.)*
- Financing file (source file): the rates in the first financing files are used.
- Consolidated file (target file). This option can be valid when the consolidated file is updated.

Used currency rates are copied to the consolidated file.

The consolidated file will include all periods found in the source files. Example:

Source file A:

Figures:	USD	Total amount:	800 000						IRR:	6,33284 %
(All transactions		Withdrawals		Principal	Ending	Interest		Fees	Financing cash flow	
at end of month)		USD	% of total	payment	balance	Accrued	Paid	Total	Cash flow	Cumulative
Month	Totals:	800 000,00	100,00	800 000,00	0,00	259 200,00	259 200,00	8 000,00	-267 200,00	-267 200,00
0	6/2014	160 000,00	20,00	0,00	160 000,00	0,00	0,00	8 000,00	152 000,00	152 000,00
1	7/2014	0,00	0,00	0,00	160 000,00	800,00	0,00	0,00	0,00	152 000,00
2	8/2014	0,00	0,00	0,00	160 000,00	1 600,00	0,00	0,00	0,00	152 000,00
3	9/2014	160 000,00	20,00	0,00	320 000,00	2 400,00	0,00	0,00	160 000,00	312 000,00
4	10/2014	0,00	0,00	0,00	320 000,00	4 000,00	0,00	0,00	0,00	312 000,00
5	11/2014	0,00	0,00	0,00	320 000,00	5 600,00	0,00	0,00	0,00	312 000,00
6	12/2014	480 000,00	60,00	0,00	800 000,00	7 200,00	7 200,00	0,00	472 800,00	784 800,00
…										
125	11/2024	0,00	0,00	0,00	40 000,00	259 000,00	0,00	0,00	0,00	-226 000,00
126	12/2024	0,00	0,00	40 000,00	0,00	259 200,00	1 200,00	0,00	-41 200,00	-267 200,00
	Totals:	800 000,00	100,00	800 000,00	0,00	259 200,00	259 200,00	8 000,00	-267 200,00	-267 200,00

Source file B:

Figures:	MEUR	Total amount:	20						IRR:	5,94477 %
(All transactions		Withdrawals		Principal	Ending	Interest		Fees	Financing cash flow	
at end of month)		MEUR	% of total	payment	balance	Accrued	Paid	Total	Cash flow	Cumulative
Month	Totals:	20,00	100,00	20,00	0,00	2,53	7,55	0,39	-7,95	-7,95
0	9/2014	17,00	85,00	0,00	17,00	0,00	0,00	0,06	16,94	16,94
1	10/2014	0,00	0,00	0,00	17,00	0,09	0,00	0,00	0,00	16,94
2	11/2014	0,00	0,00	0,00	17,00	0,18	0,00	0,00	0,00	16,94
3	12/2014	3,00	15,00	0,35	19,65	0,27	0,03	0,02	2,61	19,55
…										

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242	11/2034	0,00	0,00	0,00	0,36	2,53	0,00	0,00	0,00	-7,58
243	12/2034	0,00	0,00	0,36	0,00	2,53	0,01	0,00	-0,36	-7,95
	Totals:	20,00	100,00	20,00	0,00	2,53	7,55	0,39	-7,95	-7,95

Source file C:

Figures:	TJPY	Total amount:	200 000						IRR:	6,51404 %
(All transactions		Withdrawals		Principal	Ending	Interest		Fees	Financing cash flow	
at end of month)		TJPY	% of total	payment	balance	Accrued	Paid	Total	Cash flow	Cumulative
Month	Totals:	200 000,00	100,00	200 000,00	0,00	22 942,50	73 167,50	3 000,00	-76 167,50	-76 167,50
0	9/2014	152 000,00	76,00	0,00	152 000,00	0,00	0,00	600,00	151 400,00	151 400,00
1	10/2014	0,00	0,00	0,00	152 000,00	864,17	0,00	0,00	0,00	151 400,00
2	11/2014	0,00	0,00	0,00	152 000,00	1 728,33	0,00	0,00	0,00	151 400,00
3	12/2014	48 000,00	24,00	3 500,00	196 500,00	2 592,50	142,50	150,00	44 207,50	195 607,50

…

182	11/2029	0,00	0,00	0,00	4 000,00	22 926,67	0,00	0,00	0,00	-72 072,50
183	12/2029	0,00	0,00	4 000,00	0,00	22 942,50	95,00	0,00	-4 095,00	-76 167,50
	Totals:	200 000,00	100,00	200 000,00	0,00	22 942,50	73 167,50	3 000,00	-76 167,50	-76 167,50

Consolidated file:

Figures:	EUR	Total amount:							IRR:	5,98952 %
(All transactions		Withdrawals		Principal	Ending	Interest		Fees	Financing cash flow	
at end of month)		EUR		payment	balance	Accrued	Paid	Total	Cash flow	Cumulative
Month	Totals:	22 097 060,21	100	22 097 060,21	0,00	2 529 280,12	8 294 013,70	421 961,52	-8 715 975,21	-8 715 975,21
0	6/2014	119 269,47	119 269	0,00	119 269,47	0,00	0,00	5 963,47	113 306,00	113 306,00
1	7/2014	0,00	0	0,00	119 269,47	596,35	0,00	0,00	0,00	113 306,00
2	8/2014	0,00	0	0,00	119 269,47	1 192,69	0,00	0,00	0,00	113 306,00
3	9/2014	18 259 811,23	18 259 811	0,00	18 379 080,71	1 789,04	0,00	64 502,14	18 195 309,09	18 308 615,09
4	10/2014	0,00	0	0,00	18 379 080,71	100 507,73	0,00	0,00	0,00	18 308 615,09
5	11/2014	0,00	0	0,00	18 379 080,71	199 226,43	0,00	0,00	0,00	18 308 615,09
6	12/2014	3 717 979,50	3 717 980	376 262,47	21 720 797,74	297 945,12	34 561,38	16 125,53	3 291 030,11	21 599 645,21

…

245	11/2034	0,00	0	0,00	355 856,57	2 528 168,07	0,00	0,00	0,00	-8 353 446,34
246	12/2034	0,00	0	355 856,57	0,00	2 529 280,12	6 672,31	0,00	-362 528,88	-8 715 975,21
	Totals:	22 097 060,21	100	22 097 060,21	0,00	2 529 280,12	8 294 013,70	421 961,52	-8 715 975,21	-8 715 975,21

The consolidated file can easily be **updated** from the Project sheet.

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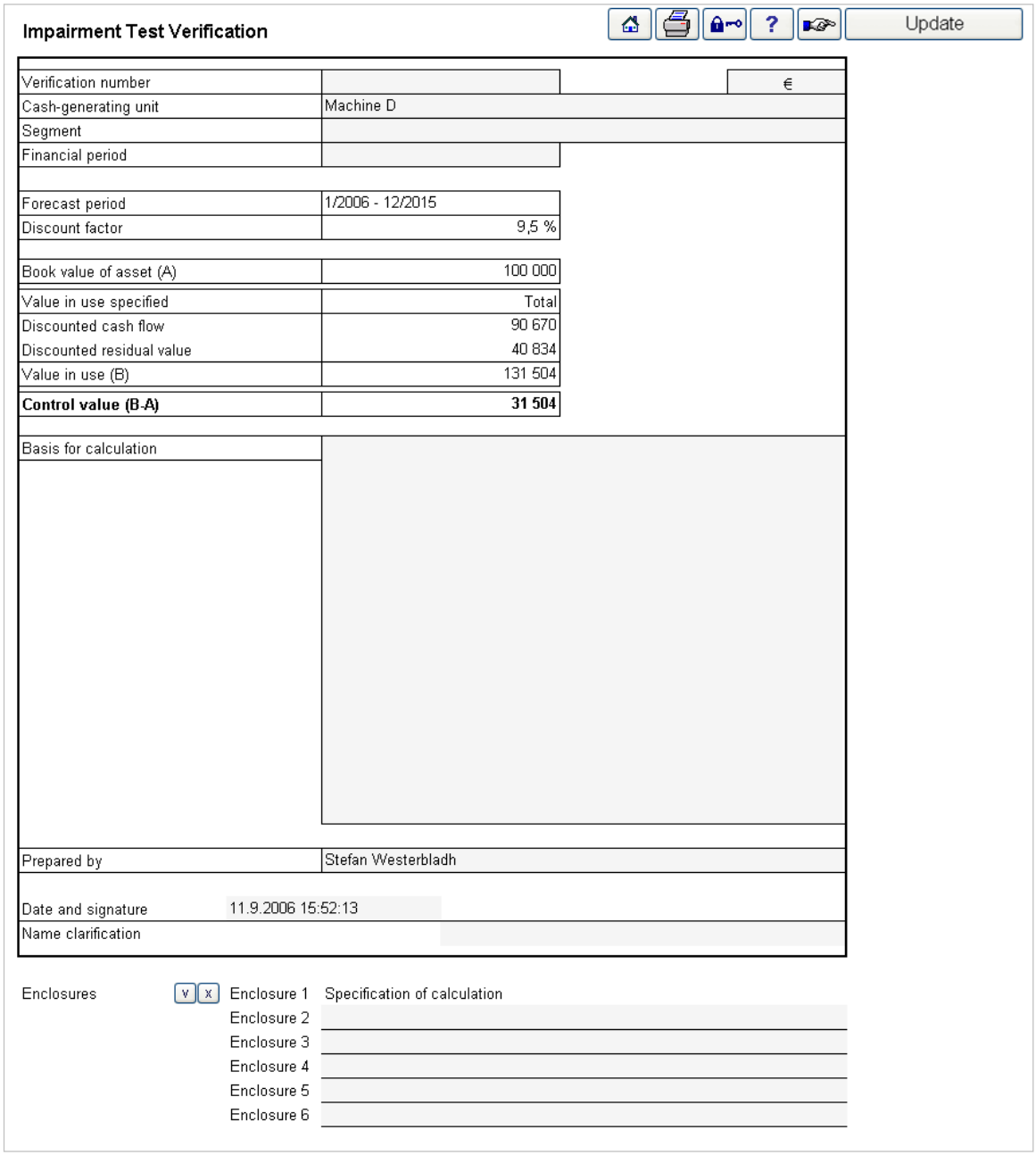
4.7 Impairment test verification

An impairment test is performed (press Update) by comparing the book value of an asset (cash-generating unit) to value in use (future discounted cash flow before tax [default] + discounted residual value). A verification is produced for recording purposes. Rule:

Value in use - book value < 0 -> Impairment loss!
Value in use - book value > 0 -> No need for action.



Impairment Test Verification

Update

Verification number		€
Cash-generating unit	Machine D	
Segment		
Financial period		
Forecast period	1/2006 - 12/2015	
Discount factor	9,5 %	
Book value of asset (A)	100 000	
Value in use specified	Total	
Discounted cash flow	90 670	
Discounted residual value	40 834	
Value in use (B)	131 504	
Control value (B-A)	**31 504**	
Basis for calculation		
Prepared by	Stefan Westerbladh	
Date and signature	11.9.2006 15:52:13	
Name clarification		

Enclosures V X
Enclosure 1 Specification of calculation
Enclosure 2
Enclosure 3
Enclosure 4
Enclosure 5
Enclosure 6

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The verification can be locked from modifications by pressing:

Note! Once the file is locked it can't be unlocked.

A specification of the calculation is automatically enclosed:

Enclosure 1: Specification of calculation

Cash flow statement

€	12/2006	12/2007	12/2008	12/2009	12/2010	12/2011	12/2012	12/2013	12/2014	12/2015
Income	22 082	22 303	22 610	22 836	23 065	23 295	23 528	23 764	24 001	24 241
Variable costs	-2 871	-2 899	-2 939	-2 969	-2 998	-3 028	-3 059	-3 089	-3 120	-3 151
Fixed costs	-5 410	-5 437	-5 475	-5 502	-5 529	-5 557	-5 585	-5 613	-5 641	-5 669
Extraordinary income & expenses										
Change in working capital	-1 094	-11	-11	-11	-11	-11	-11	-12	-12	1 185
Cash flow from operations	12 707	13 956	14 185	14 355	14 526	14 699	14 873	15 050	15 229	16 606
Asset investments and realizations										100 000
Net cash flow	12 707	13 956	14 185	14 355	14 526	14 699	14 873	15 050	15 229	116 606
Discounted net cash flow	11 974	12 045	10 804	9 985	9 227	8 527	7 880	7 282	6 729	47 052
Cumulative discounted net cash flow	11 974	24 019	34 824	44 808	54 035	62 562	70 442	77 723	84 452	131 504

Cash flow changes

%		12/2006 - 12/2007	12/2007 - 12/2008	12/2008 - 12/2009	12/2009 - 12/2010	12/2010 - 12/2011	12/2011 - 12/2012	12/2012 - 12/2013	12/2013 - 12/2014	12/2014 - 12/2015
Income		+1,00 %	+1,38 %	+1,00 %	+1,00 %	+1,00 %	+1,00 %	+1,00 %	+1,00 %	+1,00 %
Variable costs		+1,00 %	+1,38 %	+1,00 %	+1,00 %	+1,00 %	+1,00 %	+1,00 %	+1,00 %	+1,00 %
Fixed costs		+0,50 %	+0,69 %	+0,50 %	+0,50 %	+0,50 %	+0,50 %	+0,50 %	+0,50 %	+0,50 %

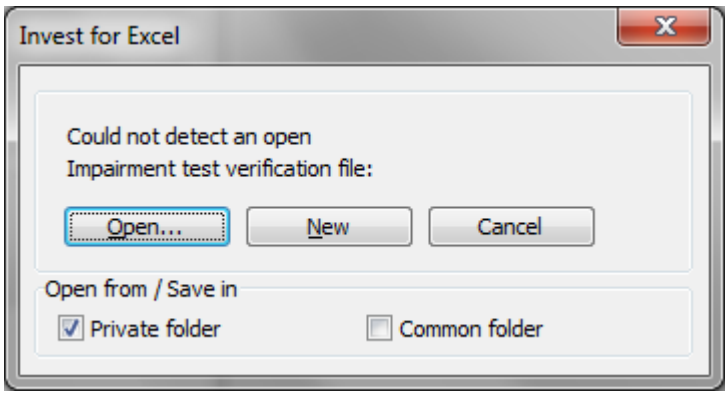
Specification of value in use

€	12/2006	12/2007	12/2008	12/2009	12/2010	12/2011	12/2012	12/2013	12/2014	12/2015	Total
Discounted net cash flow	11 974	12 045	10 804	9 985	9 227	8 527	7 880	7 282	6 729	6 218	90 670
Discounted residual										40 834	40 834
Total	11 974	12 045	10 804	9 985	9 227	8 527	7 880	7 282	6 729	47 052	131 504

To open an impairment test verification, choose one of the following three different ways: By clicking:

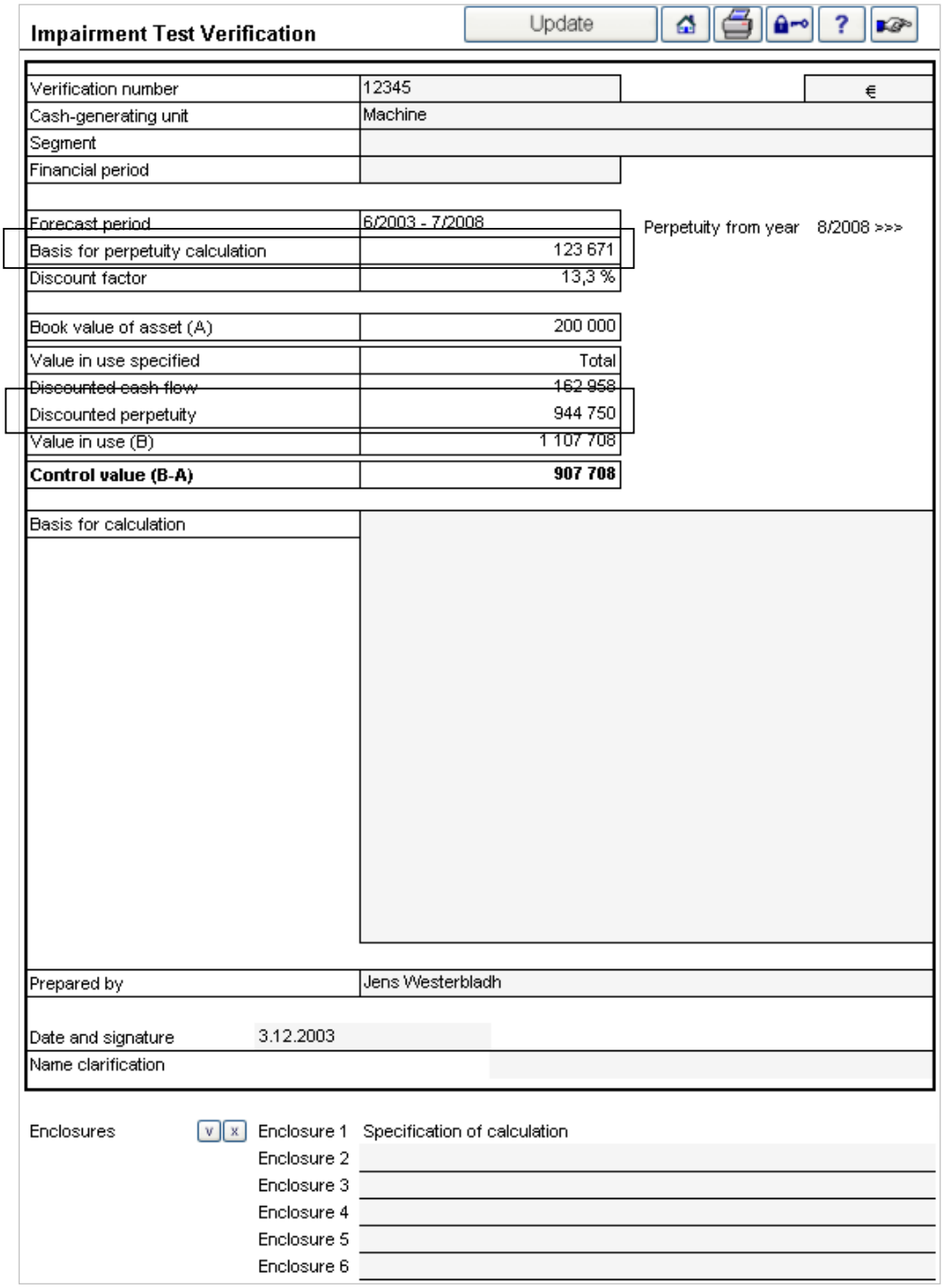
1. The impairment test button in the Home Screen.
2. The button in the top right corner of the Result table (only impairment files).
3. By selecting it from the Invest for Excel menu:

   - File - New – Impairment test opens a new, blank verification.
   - File - Open to open a saved impairment test verification
   - Result – Impairment test, the following dialog is shown (if a file is not open):



4.7.1 Perpetuity

When perpetuity is used as residual value, additional perpetuity information is shown.



Impairment Test Verification Update

Verification number	12345	€
Cash-generating unit	Machine	
Segment		
Financial period		
Forecast period	6/2003 - 7/2008	Perpetuity from year 8/2008 >>>
Basis for perpetuity calculation	123 671	
Discount factor	13,3 %	
Book value of asset (A)	200 000	
Value in use specified	Total	
Discounted cash flow	162 958	
Discounted perpetuity	944 750	
Value in use (B)	1 107 708	
Control value (B-A)	**907 708**	
Basis for calculation		
Prepared by	Jens Westerbladh	
Date and signature	3.12.2003	
Name clarification		

Enclosures

Enclosure 1	Specification of calculation
Enclosure 2	
Enclosure 3	
Enclosure 4	
Enclosure 5	
Enclosure 6	

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When growing perpetuity is used, the growth percentage is shown in Cash flow changes.

Enclosure 1: Specification of calculation

Cash flow statement

€	12/2003	12/2004	12/2005	12/2006	12/2007	12/2008
Net income	46 208	137 787	200 480	252 805	318 787	212 896
Variable costs	-20 537	-61 239	-89 102	-112 358	-141 683	-94 621
Fixed costs	-9 093	-18 770	-19 333	-19 913	-20 510	-12 172
Extraordinary income & expenses						
Change in working capital	-10 668	-4 854	-7 063	-5 895	-7 433	-5 202
Cash flow from operations	5 910	52 924	84 982	114 640	149 161	100 901
Asset investments and realizations	-160 000					
Investment net cash flow	-154 090	52 924	84 982	114 640	149 161	100 901
Discounted net cash flow	-152 059	43 410	61 504	73 207	84 046	52 850
Cumulative discounted net cash flow	-152 059	-108 649	-47 145	26 063	110 108	162 958

Cash flow changes

%		12/2003 - 12/2004	12/2004 - 12/2005	12/2005 - 12/2006	12/2006 - 12/2007	12/2007 - 12/2008	8/2008 >>>
Net income		+73,94 %	+45,50 %	+26,10 %	+26,10 %	+14,49 %	
Variable costs		+73,94 %	+45,50 %	+26,10 %	+26,10 %	+14,49 %	
Fixed costs		+26,41 %	+3,00 %	+3,00 %	+3,00 %	+1,74 %	
Perpetuity							+2,00 %

Specification of value in use

€	12/2003	12/2004	12/2005	12/2006	12/2007	12/2008	Total
Discounted net cash flow	-152 059	43 410	61 504	73 207	84 046	52 850	162 958
Discounted residual							
Total	-152 059	43 410	61 504	73 207	84 046	52 850	162 958

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4.8 Investment Proposal

The third file type of Invest for Excel contains a form ('card') for use when presenting the calculation to the investment decision-makers. It is a so-called investment proposal. Many key figures are automatically transferred from the investment calculation to this form, hence they need not be filled in manually.

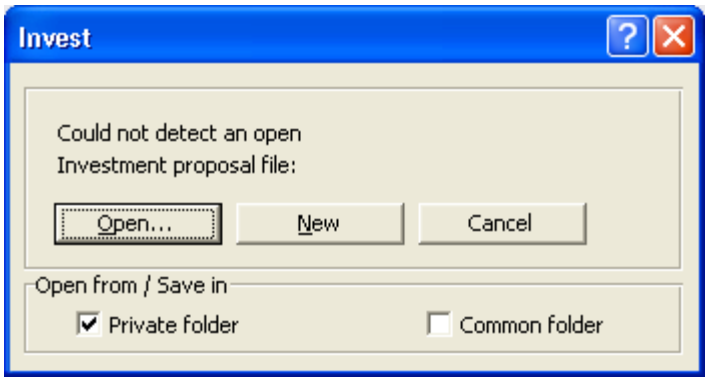
When the calculations are ready, experts in various parts of the organisation have been heard, and the matter has been discussed once more face to face with a colleague, you can print the calculation in report form. It is also possible to send the calculations as files, e.g. attached to e-mail messages.

The investment proposal contains general information about the project, the decision-making process, the persons responsible for the project, and the key figures. The investment proposal is a separate file that you can freely name, save, copy or print.

To open an investment proposal form, choose one of the following three different ways: By clicking:

1. The investment proposal button in the Home Screen.
2. The button in the top right corner of the Result table.
3. By selecting it from the Invest for Excel menu:
   - Choose File - New - Investment Proposal (creates a new investment proposal).
   - Choose **File - Open – "Invprop XYZ"** (opens a proposal called Invprop XYZ).

When switching to non-opened Investment proposal, the following window will open up:



Now you can open either an investment proposal that you have previously prepared by clicking **Open**, or a new, blank investment proposal by selecting **New…** in the menu window. Fill in the necessary new data, edit it and print the form as your proposal. Note! The text you wrote will remain unchanged even if you use the Change Language function.

Unlike other parts of the *Invest for Excel* program, the Investment Proposal file can be edited. You can undo the protection with the Excel command (**Review-Unprotect Sheet**) and edit the existing texts, formatting the way you want. By contrast, the figures on the second page that the program updates from the investment calculation can only be changed through reprogramming. For more information, refer to Item 4.9.1 Modified Investment Proposal form.

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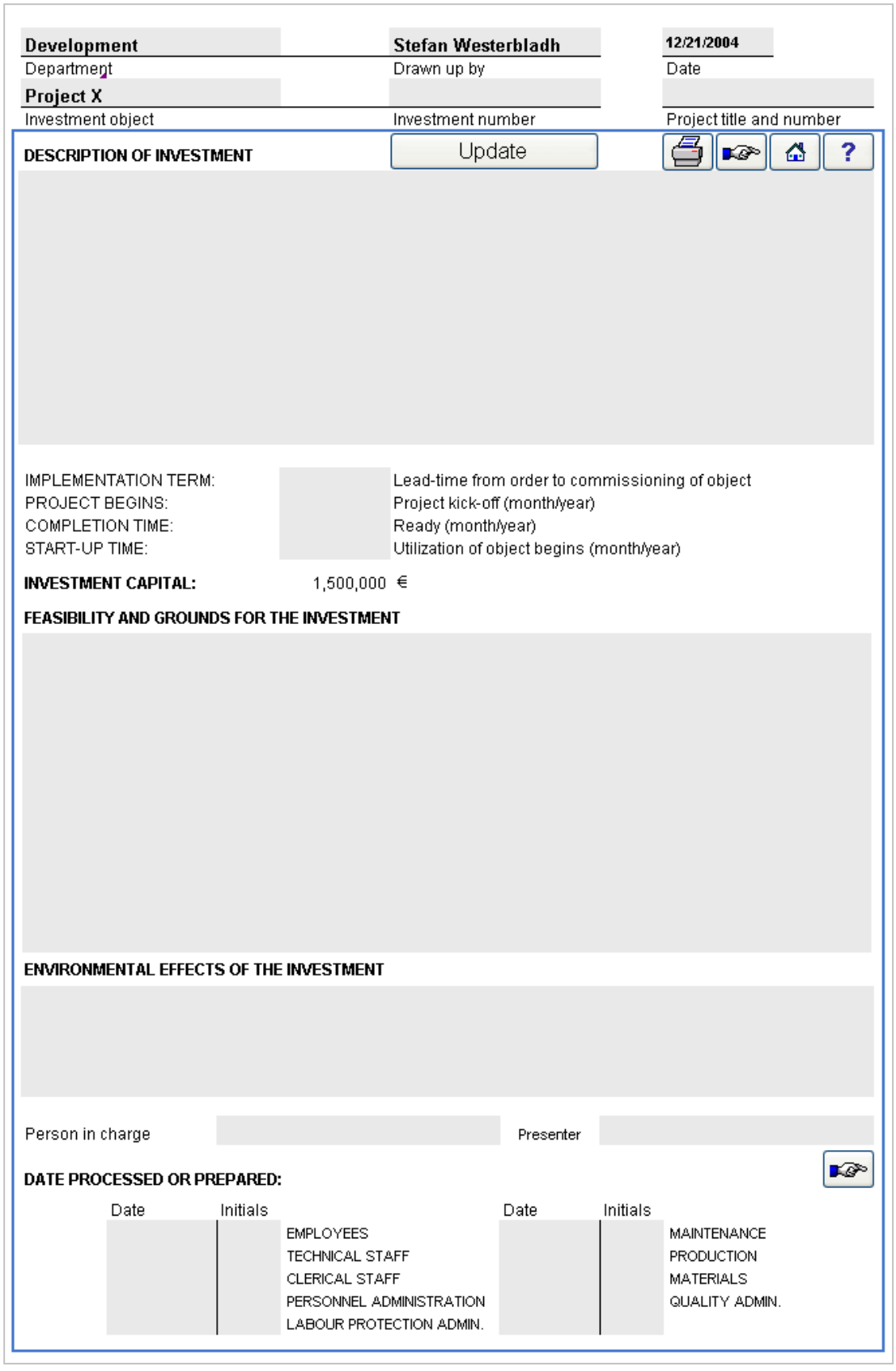
Development
Department
Stefan Westerbladh
Drawn up by
12/21/2004
Date
Project X
Investment object
Investment number
Project title and number
DESCRIPTION OF INVESTMENT
Update
IMPLEMENTATION TERM:
Lead-time from order to commissioning of object
PROJECT BEGINS:
Project kick-off (month/year)
COMPLETION TIME:
Ready (month/year)
START-UP TIME:
Utilization of object begins (month/year)
INVESTMENT CAPITAL:
1,500,000 €
FEASIBILITY AND GROUNDS FOR THE INVESTMENT
ENVIRONMENTAL EFFECTS OF THE INVESTMENT
Person in charge
Presenter
DATE PROCESSED OR PREPARED:
Date
Initials
EMPLOYEES
TECHNICAL STAFF
CLERICAL STAFF
PERSONNEL ADMINISTRATION
LABOUR PROTECTION ADMIN.
Date
Initials
MAINTENANCE
PRODUCTION
MATERIALS
QUALITY ADMIN.

Some data in the investment calculation can be copied using the Update button. If you have several investment calculations open, the program prompts you to choose one of them. The **Update** function will take a while to run.

Enter the necessary data, in other words, use the applicable parts of the form:

Department: Informative text field.

Drawn up by: Name of person, who did the investment proposal.

Date: Date when the investment proposal was made or updated.

Investment object: Informative text field on the investment.

Investment number: Numbering of the proposal.

Project name and number:
Informative text field.

Description of investment:
Informative text field. (Go to this field with the mouse).

Implementation term: Lead-time from order to commissioning of object.

Project begins: Project kick-off (month/year).

Completion time: Time when project is due for completion (month/year).

Start-up time: Utilization of object begins (month/year).

Investment capital: Sum of proposed investments.

Feasibility and grounds for the investment:
Informative text field. (Go to this field with the mouse).

Environmental effects of the investment:
Acknowledgement of effects, if any, according to corporate regulations.

Person in charge: Project Manager and person in charge.

Date processed or prepared:
Dates when the matter was handled, and the initials of the presenting persons.

Print button for printing the investment proposal.

Go to the following page of the investment proposal.

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Development	Stefan Westerbladh	12/21/2004
Department	Drawn up by	Date
Project X		
Investment object	Investment number	Project title and number

CATEGORY OF INVESTMENT

- [x] Productivity investment
- [ ] Inv. for expansion & development
- [ ] Maintenance investment
- [ ] Replacement investment
- [ ] Strategic investment
- [ ] Statutory investment / fixed by law
- [x] Will be carried out as a project
- [ ] Carried out as normal work
- [ ] Associate project
- [ ]

AGREEMENT AND DECISION

Coverage of binding offers (%)		Investment proposal is valid until	
Estimated duration of project		Quotations are valid until	
Change in personnel (+/-)		Estimated start-up time	
Environment protection, share %		From decision to start-up (months)	
		From start-up to full production (months)	

Update

COST ESTIMATE

Proposed investments	1,500,000
Net working capital	16,667
Interest from construction time	
Loss of margins	
Capital Requirement	1,516,667

PROFITABILITY

Discount rate (%)	8.0 %
Average operating margin per annum	212,976
Internal Rate of Return (%)	16.1 %
NPV excluding residual value	-214,093
NPV including residual value	1,005,829
Payback time (years)	10.0
Economic life	

SENSITIVITY ANALYSIS

	Default value	-10% (worse)	IRR	+10 % (better)	IRR
Investment capital	1,500,000	1,650,000	14.9	1,350,000	17.6 %
Operating Margin	212,976	191,678	14.7	234,274	17.5 %

BREAK-EVEN POINT	Break even	Certainty margin	Certainty margin %
Investment capital	2,755,820	1,255,820	83.7 %
Operating Margin	115,625	97,351	45.7 %

PERSON IN CHARGE

SUPPORTERS

Date	Signature

LEVEL OF APPROVAL DECISION

Date

Signature

- [ ] Accepted
- [ ] Rejected
- [ ] Postponed
- [ ] Other

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Category of investment:

To choose one of the options, click the appropriate cell. Clicking adds a tick in the cell. The following are the optional investment categories: Productivity investment, Inv. For expansion and development, maintenance investment, replacement investment, strategic investment, statutory investment / fixed by law. You can also rename a category.

Place a tick to indicate whether the investment will be carried out as a project, as normal work, or as a parallel (sidelong) project.

Agreement and decision:

Complete all applicable items, or create new headings (refer to **Protection** above).

Coverage of binding offers (%): Enter as a percentage the proportion of investment acquisition costs that are tied to offers.

Estimated duration of project: Enter a figure representing the duration of the project in months.

Change in personnel (+/-): If the staff complement will be reduced in the course of the investment term, enter the reduction as a negative (-) of employees. Correspondingly, add employees as positive numbers (+).

Environmental protection, share %: If a part of the investment is targeted at environmental protection, indicate its proportion as a percentage of the total investment

Investment proposal is valid until: Enter the date of expiry of the investment proposal.

Quotations are valid until: Enter the date or expiry of tenders for the acquisition of the investment as proposed.

Estimated start-up time: Enter the month and year when the investment object will be taken into use.

From decision to start-up (months): Lead-time from date of investment decision to that of taking the object in use.

From start-up to full production (months): Lead-time from taking into use until investment object is in normal use (normal operating rate).

Click this button in order to update figures from investment calculation. Remember to click here, if you change the investment calculation.

Cost estimate: Capital requirement. Data can be entered in the grey cells. Other values come from the investment calculation.

Proposed investment: Sum of proposed investments from the calculation file. Note that reinvestments are not included.

Net working capital: Short term assets of first period + inventories - accounts payable.

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Interests from construction time: Enter here financing costs accrued during implementation, if you want to include them in the budget.

Loss of margins: Here you can specify the disruption of other activity due to taking the investment in use. Please, note that loss of margin should also be taken into account in the investment calculation.

Profitability

The figures are copied from the investment calculation.

Discount rate: The rate of return requirement entered under Basic Values discount factor.

Average operating margin per annum: The program calculates the average **EBITDA; operating income before depreciation** per year on the basis of the margin per period.

Internal Rate of Return (%): Is abbreviated **IRR**. It is a value taken from the Result screen representing annual income from the investment as a percentage.

NPV excluding residual value: NPV – PV of residual value.
NPV including residual value: NPV from Profitability analysis.

Payback time (years): Payback time with the discount rate of interest taken into account. Shows how long it takes before the net cash flow, as discounted to the present time with the discount rate, is positive. If you want to know the payback time without interest, change the discount rate to zero (0) in the Basic Values screen.

Economic life: Often the same as the **investment term** entered in the **Investment Term** dialogue box. If the calculation includes 'construction time', the investment calculation term is longer than the economic life of the investment object. The economic life of the investment object can, however, exceed the investment term.

Sensitivity analysis

The investment's cost of acquisition and EBTDA ±10% from the starting point.

Investment capital (Proposed investments)

1. The first column shows the sum total of the investment as added up in the investment calculation. Look under **Profitability** which internal rate of return applies, for the base case.
2. The total investment has been increased by 10% in the second column.
3. The third column shows the corresponding internal rate of return.
4. The acquisition cost is 10% lower in the fourth column, and
5. The fifth column shows the corresponding internal rate of return.

EBITDA

1. The first column shows the average **EBITDA; operating income before depreciation** per year, as obtained from the Investment calculation. Look under **Profitability,** which internal rate of return applies, for the base case.
2. The operating profit is 10% lower in the second column.
3. The third column shows the corresponding internal rate of return.
4. In the fourth column, the operating profit is 10% better, and

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5. The fifth column shows the corresponding internal rate of return.

Break-even Point:

Investment capital: This is how much the investment may cost at a maximum, without the required returns having to be reduced. You also see the margin of change from the planned value to Break-Even point as a figure and a percentage.

Operating Margin:
The lowest the average **EBITDA** per year the investment can bear, taking the interest rate into account. You also see the margin of change from the planned value to the Break-Even point as a figure and a percentage.

NOTE! Invest for Excel cannot always calculate the Break-Even point. How well this function works, depends on the data in the calculation.

Person in charge: Reference to the front cover of the form. Suggested responsible person.

Supporters: Persons in favour of the suggestion.
Date and signature.

Level of approval decision:
Person or body deciding on the issue.
Date, and possibly signature.

Decision: Tick one of the following boxes.

- Accepted (approved)
- Rejected (refused)
- Postponed (transferred) or
- Other (other decision).

Go to the previous page of the investment proposal.

You can order customised investment proposal forms from DataPartner. The program can use various investment proposal formats. Thus each organisation can use its own forms in conjunction with *Invest for Excel*.

4.8.1 Modified investment proposal form

Note: The default format represents suggested contents, which can be made more applicable, if necessary.

Do as follows to edit it: The investment proposal file is protected without a password. To undo the protection: Exit from the Invest for Excel menu by selecting **Other** and after that **Excel menus**. In Excel, select: *Tools, Protection, Unprotect Sheet...)*. It is an Excel workbook that you can then edit quite freely. You can rename headings, and add or delete headings and input fields, and move fields.

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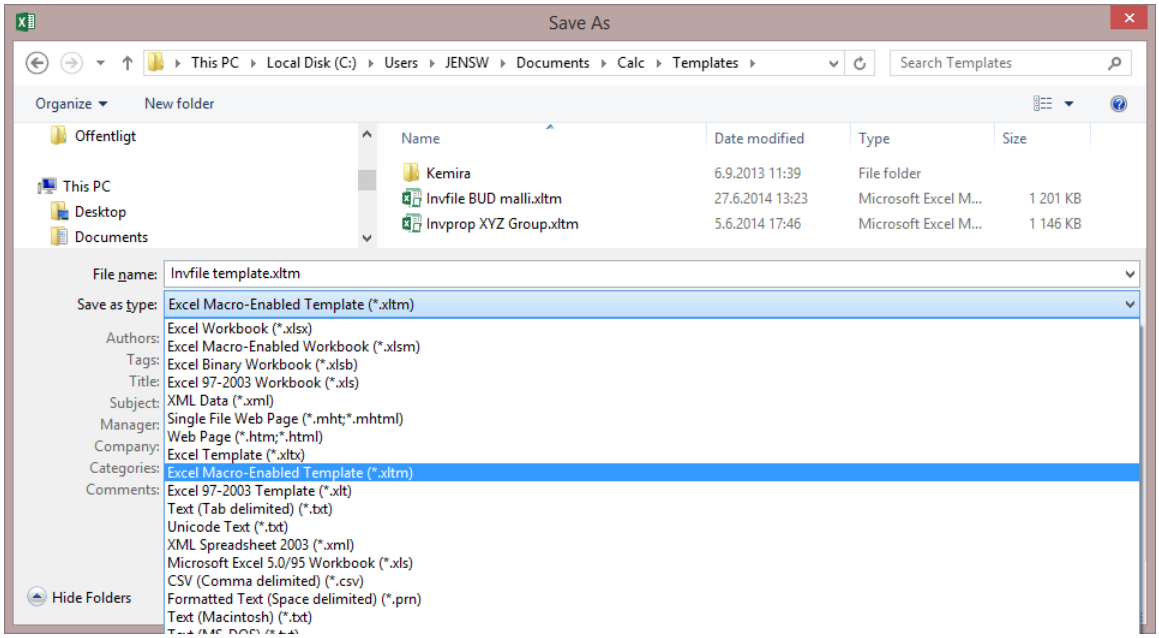
BUT: **1)** Note that the **Change Language** function will not work with the edited items.

2) Caution must be taken when editing the proposal form, otherwise the update function might not work as it should. Note that, if you need to make changes to this section, you can also contact Datapartner and ask for an offer for the work involved.

Remember to save the modified form as a new template. Select: **File** menu, then **Save as,** change the file type from XLSM (Excel Macro-Enabled Workbook) to XLTM (Excel Macro-Enabled Template). Give the file a name and save it in the folder you prefer. See chapter 2.1.3 template files for more information about using templates.



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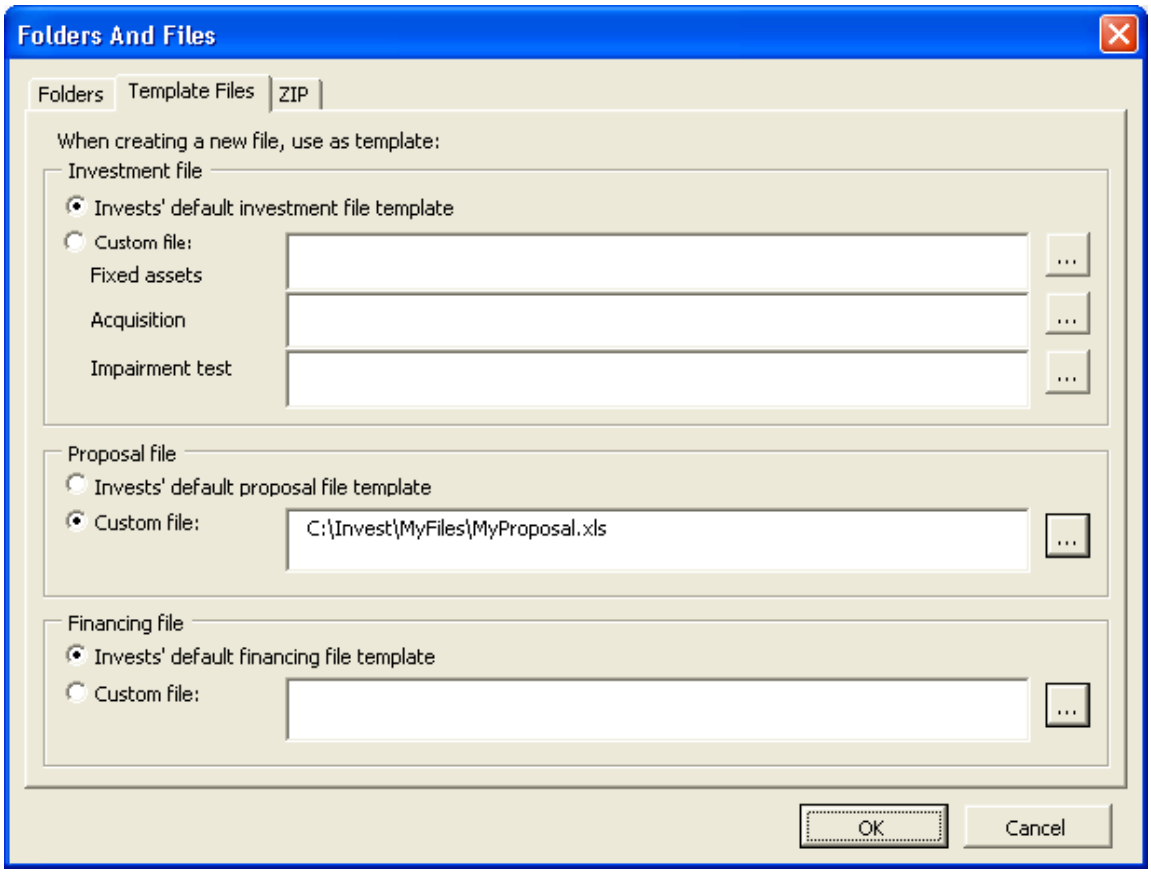

To return to the Invest for Excel menu, select the Invest for Excel option added to Excel's menu. To access your modified form, go to Invest for Excel's **File menu,** select **Folders and Files.** Select the **Template Files** tab and select the template you want.

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5 Analysis

Sensitivity analyses are aimed at reducing the uncertainty in the evaluation of investments. Usually sensitivity analyses are calculations for studying how alternative assumptions in the various variables affect profitability. The analyses can be used for studying when an investment becomes unprofitable or which assumptions make a difference between two profitable alternatives with regard to their profitability.

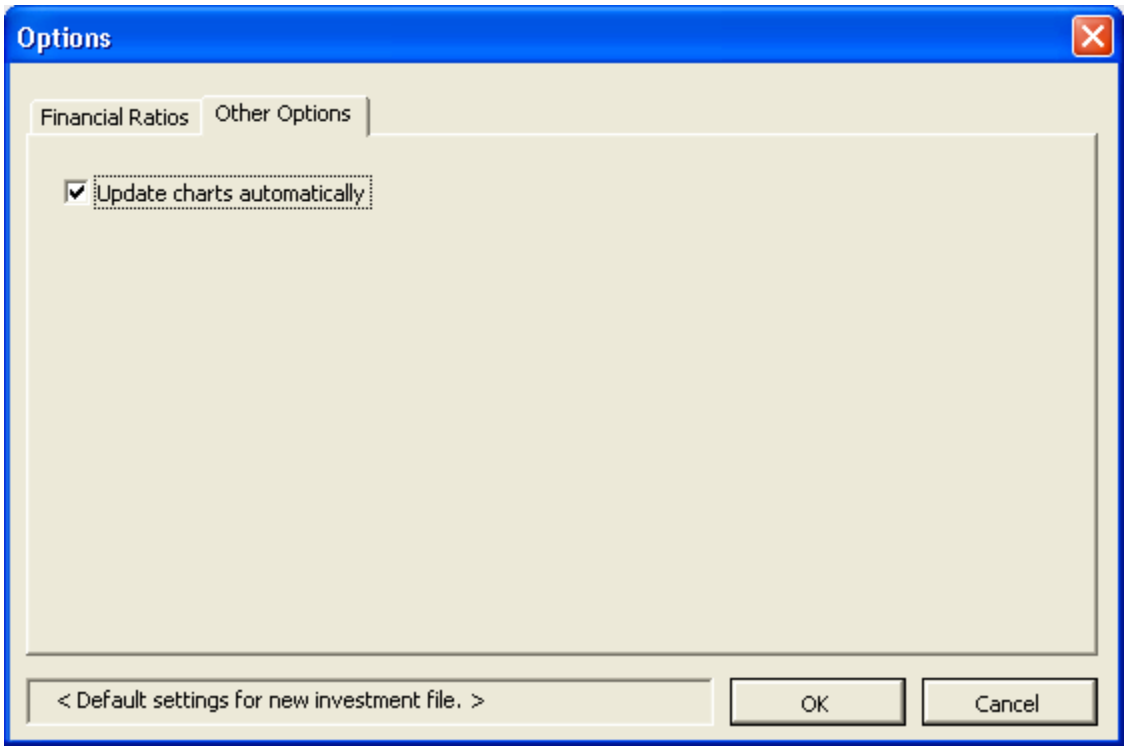
Sensitivity analyses give an idea how the profitability of an investment project is affected by changing certain basic assumptions or values (e.g. the acquisition cost increases by 10%, or variable costs decrease by 5%). You can do sensitivity testing freely using these tables and study the changes. Your testing will not change the actual calculations.

The analysis can be done separately for each parameter. They change equally much over the whole investment term. In order to check the changes in a variable for certain periods only (or to simulate simultaneous changes in several parameters), enter the changes in the actual Investment calculation.

Combinations of two or more variables may lead to completely different results. One way is to conduct the analysis using one variable at a time and identify a few variables that affect profitability the most. After this, you can feed the most critical variables into the investment calculation.

5.1 Update charts automatically

Charts can be updated automatically or manually (default). It's possible to set automatically update from Invest for Excel options (Menu: Other – Options):



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When automatic update is activated, every analysis on a sheet is updated when the sheet is activated. Note that this updating takes some time.

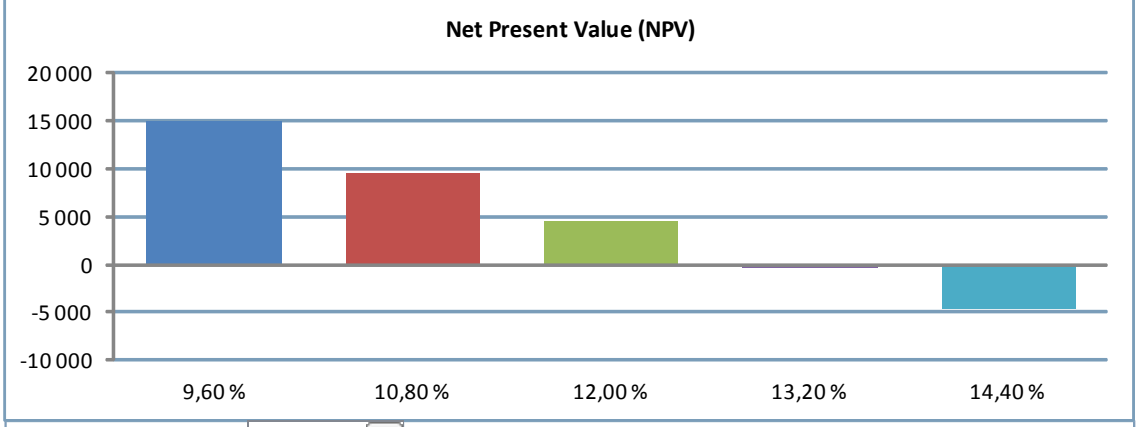
5.2 Discount factor analysis

You can analyse the discount rate's impact on profitability by entering alternative discount rates. A ±10% and ±20% change in the discount rate is shown as default.

Enter the analysis values and then click on the ! button to the left. Note that the analysis requires manual updating by pressing this button.

Discount factor's impact on profitability

Discount factor	9,60 %	10,80 %	12,00 %	13,20 %	14,40 %
Change, %	-20,0 %	-10,0 %	0,0 %	+10,0 %	+20,0 %
Net Present Value (NPV)	14 910	9 545	4 557	-88	-4 419
Change, %	+227,2 %	+109,5 %	0,0 %	-101,9 %	-197,0 %



Key financials	12/2013	9,60 %	10,80 %	12,00 %	13,20 %	14,40 %
EBITDA; Operating income before deprec		21 660	21 660	21 660	21 660	21 660
EBITDA, %		67,7%	67,7%	67,7%	67,7%	67,7%
EBIT; Operating income, USD		11 660	11 660	11 660	11 660	11 660
EBIT, %		36,4%	36,4%	36,4%	36,4%	36,4%
Return on net assets (RONA), %		12,3 %	12,3 %	12,3 %	12,3 %	12,3 %
Economic Value Added (EVA), USD		-492	-1 632	-2 772	-3 912	-5 052

The analysis can be done for Net Present Value, Profitability Index (PI), Discounted Value Added (DCVA), Payback time, years and Simple payback time, years. Additionally, up to six key financial ratios (including user-created ratios) can be included for a selected period.

When Free cash flow to equity is included in the calculation, Net Present Value to equity, Payback time to equity, years and Simple payback time to equity, years can also be analysed. Change in Cost of equity is used for these profitability ratios.

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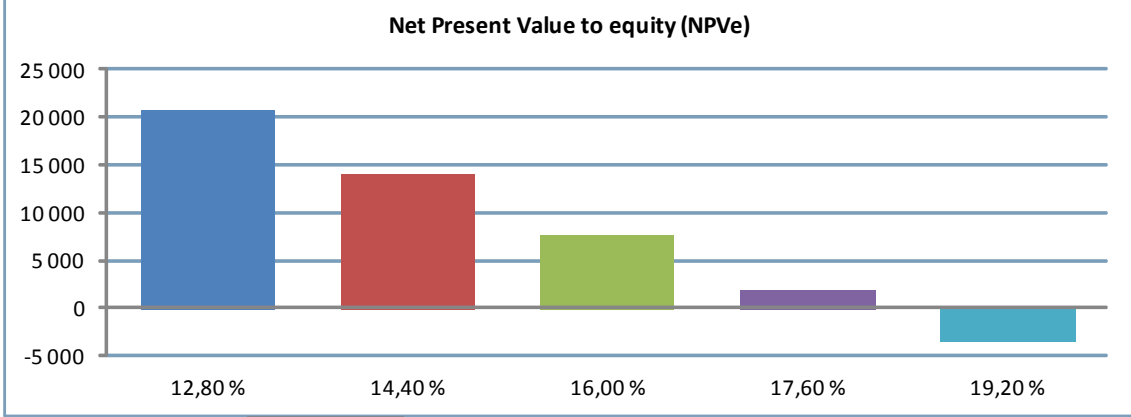
Discount factor's impact on profitability

Discount factor	9,60 %	10,80 %	12,00 %	13,20 %	14,40 %
Change, %	-20,0 %	-10,0 %	0,0 %	+10,0 %	+20,0 %
Cost of equity	**12,80 %**	**14,40 %**	**16,00 %**	**17,60 %**	**19,20 %**
Change, %	-20,0 %	-10,0 %	0,0 %	+10,0 %	+20,0 %
Net Present Value to equity (NPVe)	20 751	13 891	7 625	1 891	-3 367
Change, %	+172,1 %	+82,2 %	0,0 %	-75,2 %	-144,2 %



Key financials	12/2013	12,80 %	14,40 %	16,00 %	17,60 %	19,20 %
EBITDA; Operating income before deprec		21 660	21 660	21 660	21 660	21 660
EBITDA, %		67,7%	67,7%	67,7%	67,7%	67,7%
EBIT; Operating income, USD		11 660	11 660	11 660	11 660	11 660
EBIT, %		36,4%	36,4%	36,4%	36,4%	36,4%
Return on net assets (RONA), %		12,3 %	12,3 %	12,3 %	12,3 %	12,3 %
Economic Value Added (EVA), USD		-492	-1 632	-2 772	-3 912	-5 052

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5.3 Total investment analysis

You can analyse the total investment's impact on profitability by entering alternative amounts of investment capital. The program shows the impact of a ±10% and ±20% change as default.

Change the default values and then click on the ! button to the left (only the click updates the values).

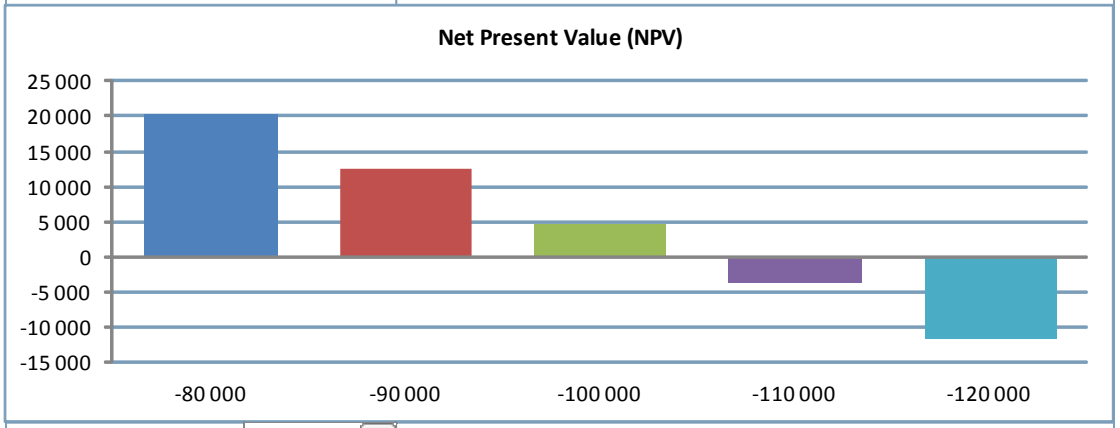
The question to ask here is: What happens to profitability, if we can manage the same investment with a lesser capital outlay, or what excesses can we go to without compromising our profitability target?

The changes in the total investment are an average, i.e. the possible distribution ratio between machines and buildings is maintained.

From the drop down list, choose alternatively: 'Net Present Value (NPV)', 'Internal Rate of Return (IRR)', 'Internal rate of return before tax', 'Modified Internal Rate of Return (MIRR)', 'Profitability Index (PI)', 'Discounted Value Added (DCVA)', 'Payback time, years' or 'Simple Payback time, years' as the profitability measure. Note that Payback is limited to the calculation term.

Total investment's impact on profitability

Total investment, USD	-80 000	-90 000	-100 000	-110 000	-120 000
Change, %	-20,0 %	-10,0 %	0,0 %	+10,0 %	+20,0 %
Net Present Value (NPV)	20 358	12 458	4 557	-3 343	-11 244
Change, %	+346,7 %	+173,4 %	0,0 %	-173,4 %	-346,7 %



Key financials	12/2013	-80 000	-90 000	-100 000	-110 000	-120 000
EBITDA; Operating income before depred		21 660	21 660	21 660	21 660	21 660
EBITDA, %		67,7%	67,7%	67,7%	67,7%	67,7%
EBIT; Operating income, USD		13 660	12 660	11 660	10 660	9 660
EBIT, %		42,7%	39,6%	36,4%	33,3%	30,2%
Return on net assets (RONA), %		18,0 %	14,8 %	12,3 %	10,2 %	8,5 %
Economic Value Added (EVA), USD		988	-892	-2 772	-4 652	-6 532

Beneath the bar chart is another drop down list from which you can choose the period for the financial statement's key figures you want to analyse. The table shows how the change affects the *Operating Income*, *Return on Net Assets* and *Economic Value Added*. *Operating Result* comes from the *Operating Profit (cumulative financial year)* row in the Income statement.

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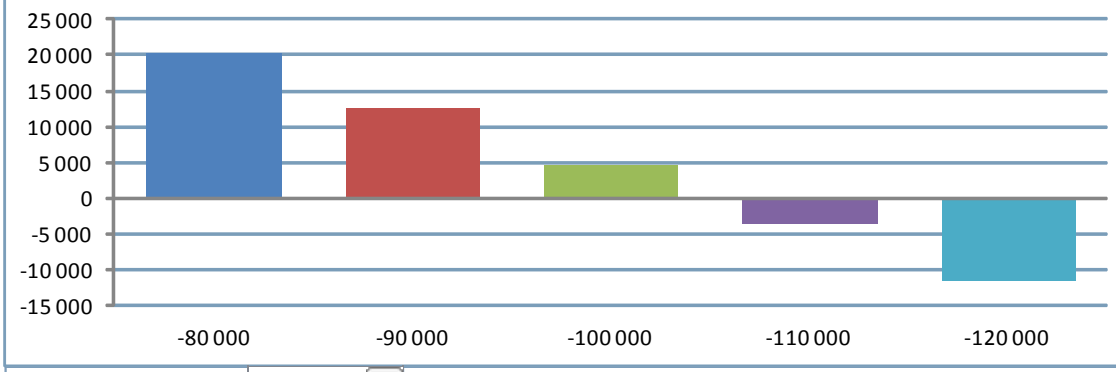
5.4 Income analysis

You can see the effect that changes in the total income has on profitability. The program shows the impact of a ±10% and ±20% change as default. The default percentage can be changed freely. When you enter a change in income as a percentage (e.g. +5 or –5), remember to click the button ! to the left of the figures, as only the click updates the values.

From the drop down list, choose alternatively: 'Net Present Value (NPV)', 'Internal Rate of Return (IRR)', 'Internal rate of return before tax', 'Modified Internal Rate of Return (MIRR)', 'Profitability Index (PI)', 'Discounted Value Added (DCVA)', 'Payback time, years' or 'Simple Payback time, years' as the profitability measure. Note that Payback is limited to the calculation term.

Total investment's impact on profitability

Total investment, USD	-80 000	-90 000	-100 000	-110 000	-120 000
Change, %	-20,0 %	-10,0 %	0,0 %	+10,0 %	+20,0 %
Net Present Value (NPV)	20 358	12 458	4 557	-3 343	-11 244
Change, %	+346,7 %	+173,4 %	0,0 %	-173,4 %	-346,7 %



Key financials	12/2013	-80 000	-90 000	-100 000	-110 000	-120 000
EBITDA; Operating income before deprec		21 660	21 660	21 660	21 660	21 660
EBITDA, %		67,7%	67,7%	67,7%	67,7%	67,7%
EBIT; Operating income, USD		13 660	12 660	11 660	10 660	9 660
EBIT, %		42,7%	39,6%	36,4%	33,3%	30,2%
Return on net assets (RONA), %		18,0 %	14,8 %	12,3 %	10,2 %	8,5 %
Economic Value Added (EVA), USD		988	-892	-2 772	-4 652	-6 532

Beneath the bar chart is another drop down list from which you can choose the period for the financial statement's key figures you want to analyse. The table shows how the change affects the *Operating Result*, *Return on Net Assets* and *Economic Value Added*. *Operating Result* comes from the *Operating Profit (cumulative financial year)* row in the Income statement.

5.5 Variable costs analysis

Refer to Item 5.4. Income analysis. Here you simulate the effect of changes in variable costs.

5.6 Fixed costs analysis

Refer to Item 5.4. Income analysis. Here you simulate the effect of changes in fixed costs.

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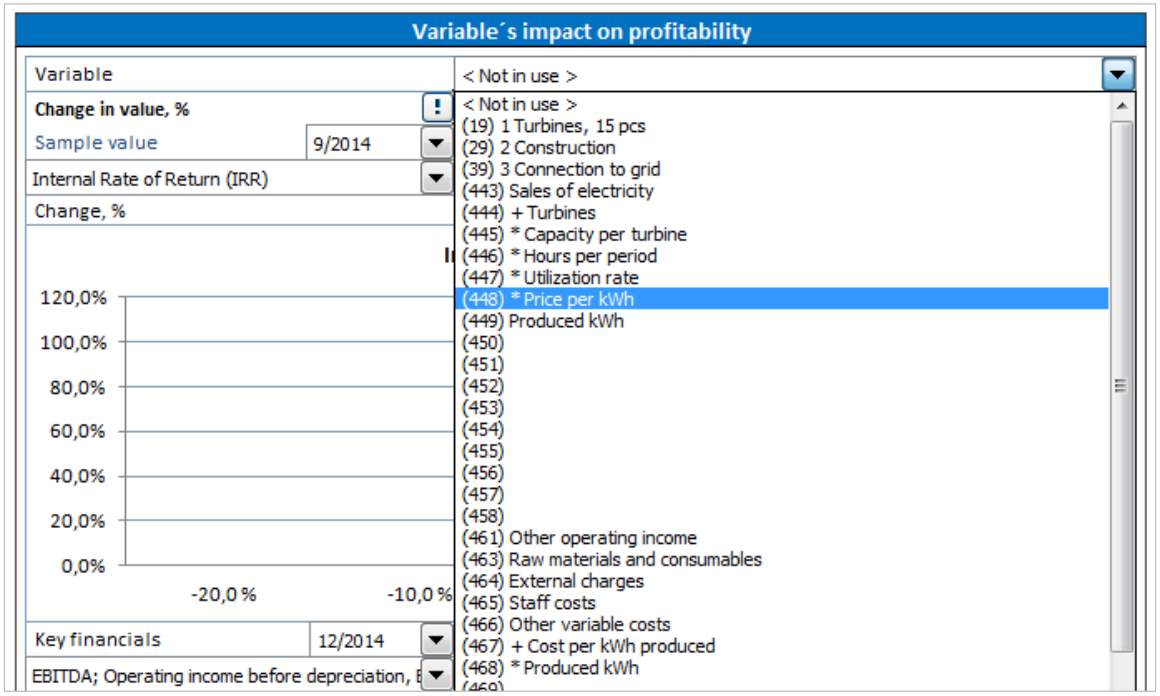
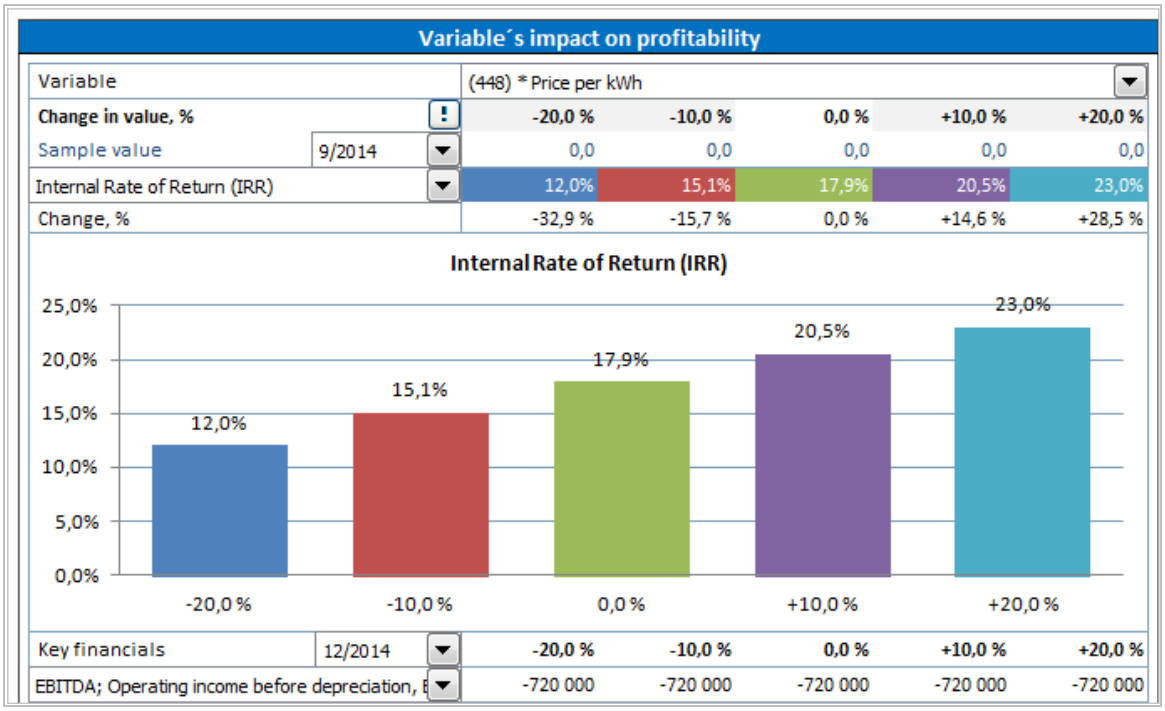
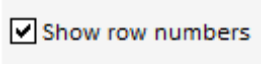
5.7 Income variable analyses

You can create up to 6 Income variable analyses. An Income variable can be selected from Investment rows, Income rows, Variable cost rows or fixed cost rows. Example:





You can choose if you want to include row numbers in the dropdown lists with the check button beside the analysis:



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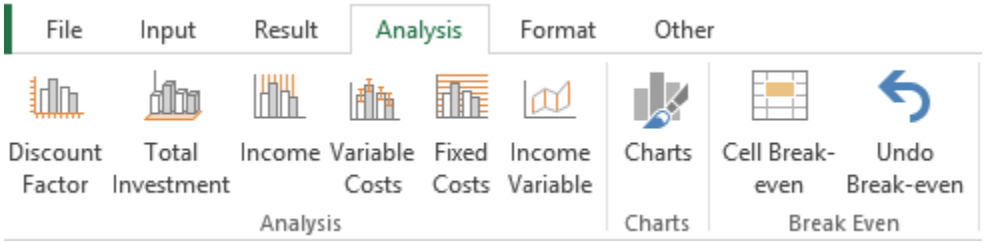
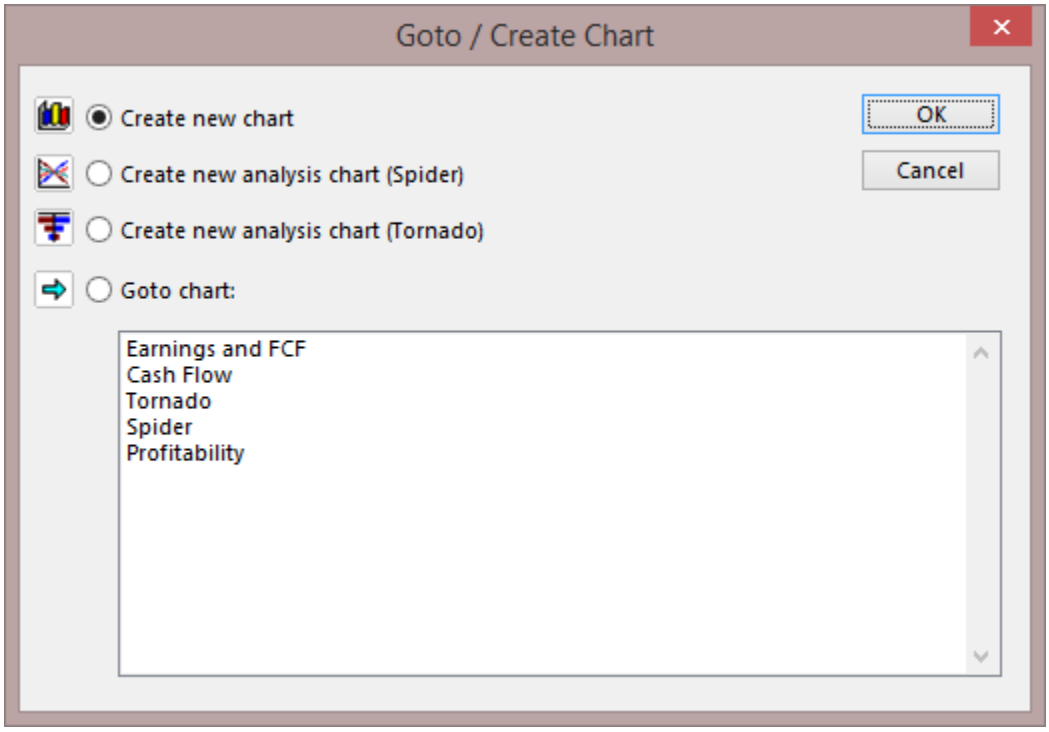
5.8 Charts

It is easy to create diagrams and sensitivity analyses for use in the investment calculation using the **Charts** function. Go to the **Analysis – Charts** menu**,**



or use the button. The **Charts** dialog box:



There are four alternatives in the dialog box:

1) *Create new chart*,
2) *Create new analysis chart (Spider)*,
3) *Create new analysis chart (Tornado)*and
4) *Goto chart*, if there are any existing charts in the file.

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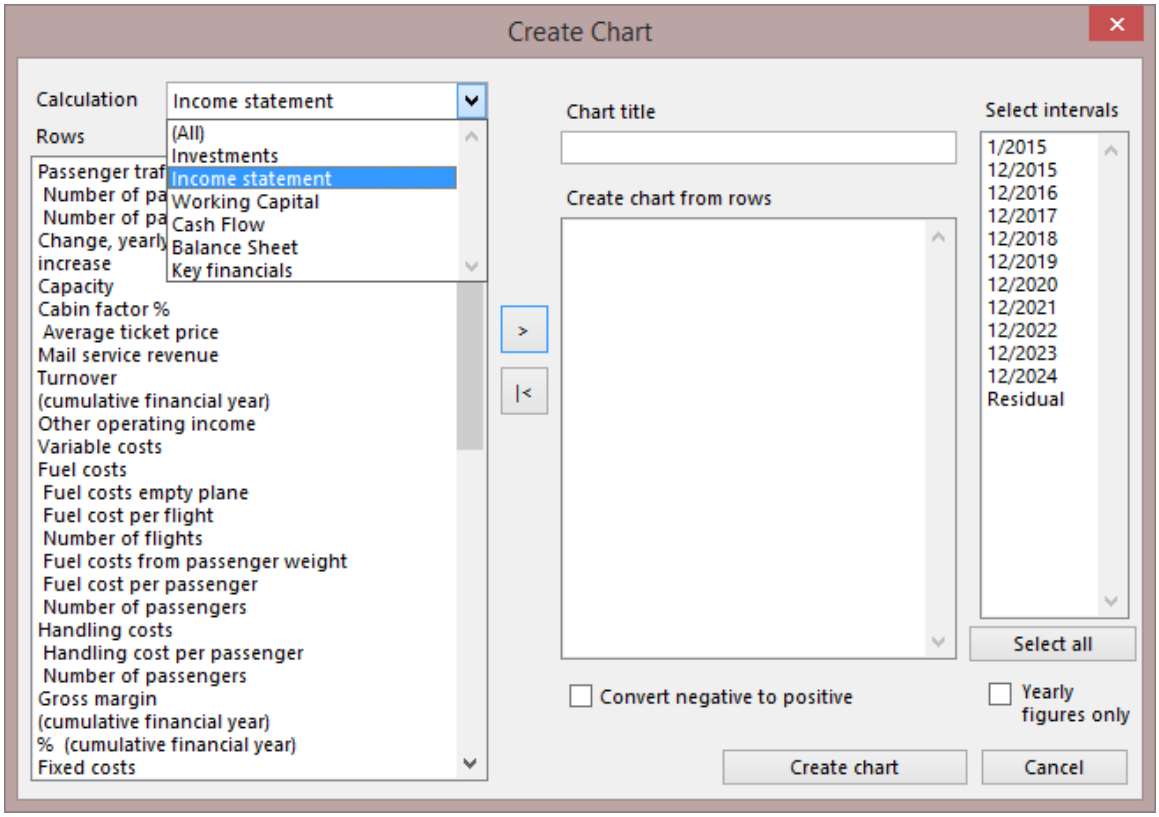
5.8.1 Create new chart



From the drop down menu, choose first the report or Input screen from which to import rows to your chart. Next, mark the row or rows (**Tip**: When selecting several rows at the same time, keep pressing the Ctrl button when selecting rows):

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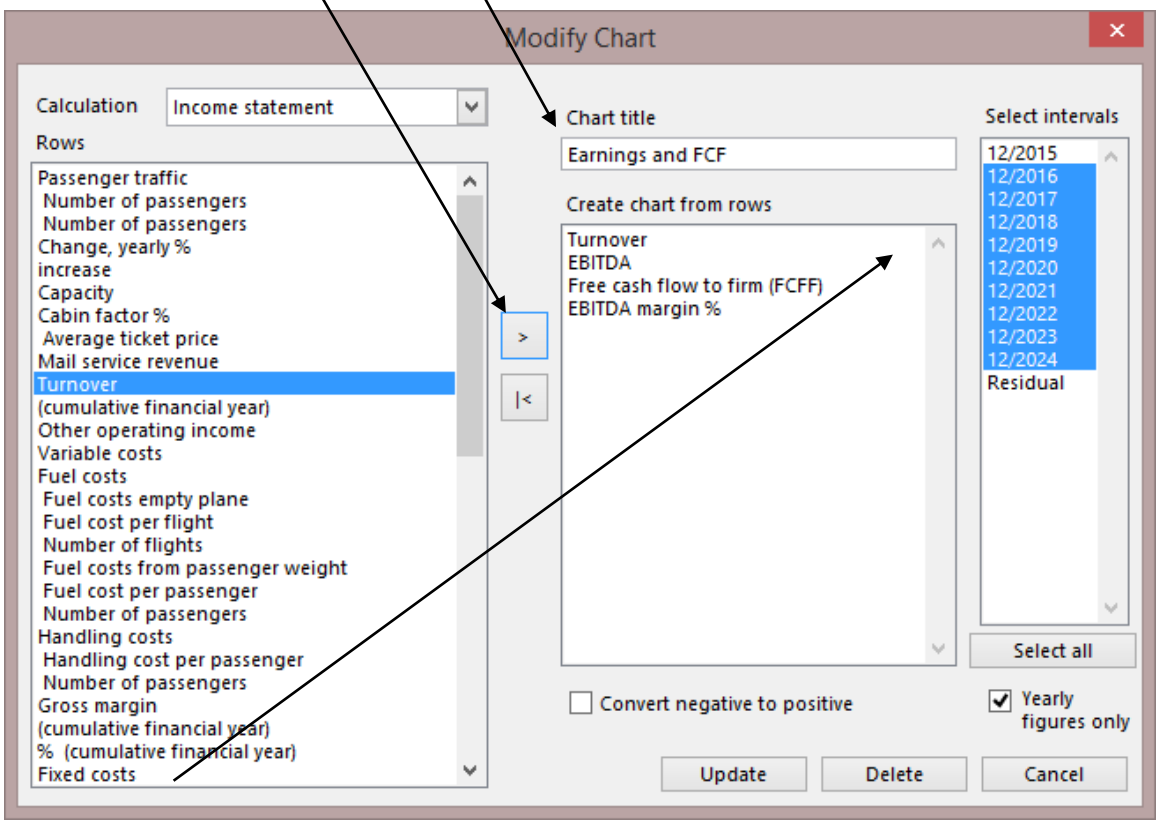
When you click the > button in the centre of the dialog box, the rows selected become sets of bars in your chart. Give your chart a title.



Select the periods that you want to include in your chart from the box to the right. Note! You can change the figures for periods shorter than a year to annual figures with a tick in the box **Yearly figures only**. Check the box **Convert negative to positive** to get the bars or lines of the chart above the X-axis, change the costs and investments to positive figures when appropriate. Click the **Create chart** button. Invest for Excel creates a separate worksheet, containing the chart specified by you, in your investment calculation file.

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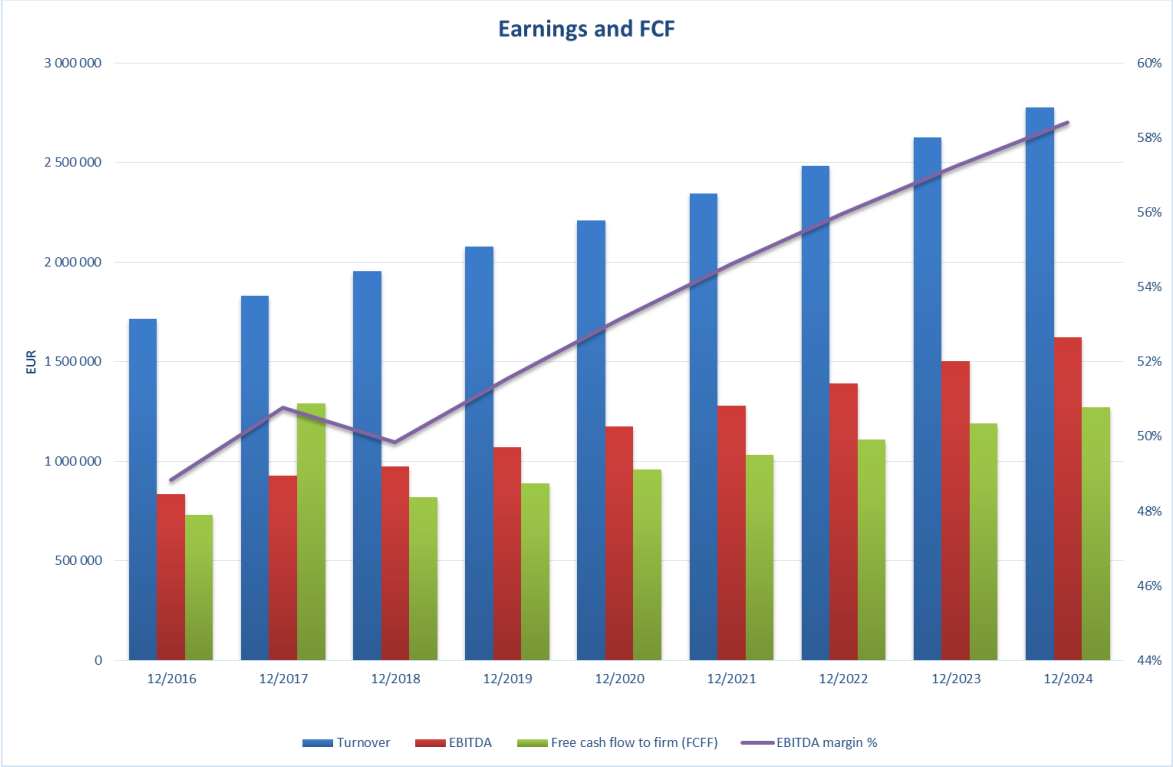
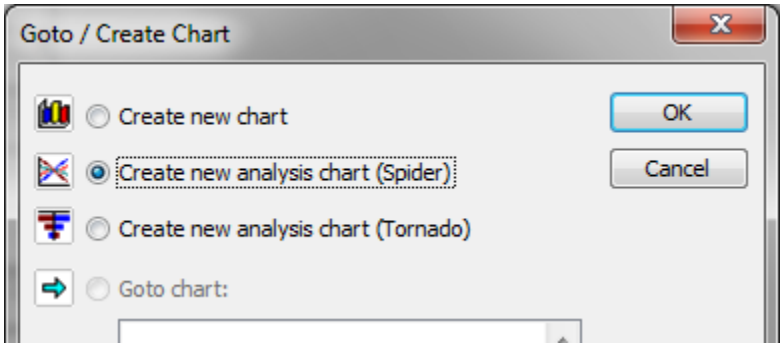


Now you can continue formatting your chart using Excel's functions.

5.8.2 Create new Sensitivity Analysis chart (Spider)



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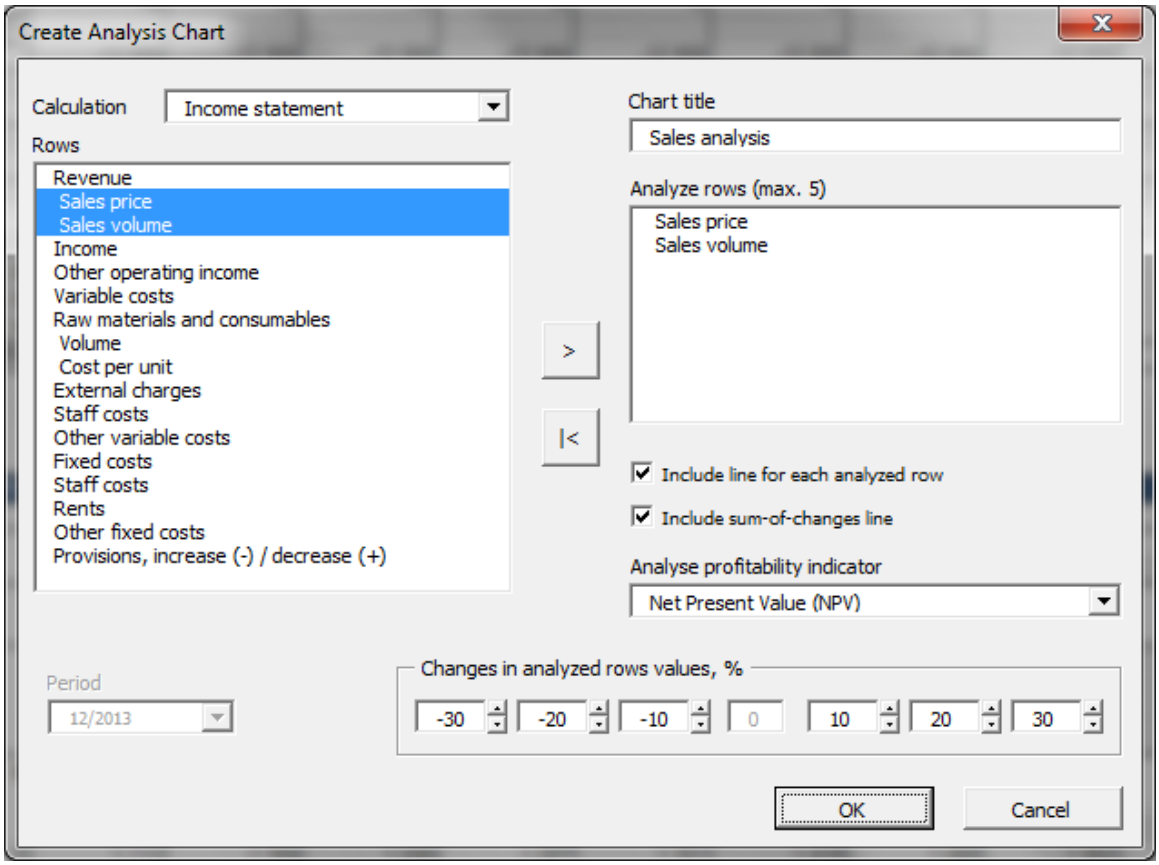

The principle is the same as that applied to creating charts:

1) Select the rows you want to analyse.
2) Click the button.
3) Give your analysis a title.
4) You can choose if you want to include a line for each analyzed row, a sum-of-changes line or both. To create lines for each analyzed row, each row is separately applied with the change percentages, whereas for the sum-of-changes line, all analyzed rows are changed at once.
5) Choose analysis variable from the following:

   Net Present Value (NPV)
   Internal Rate of Return (IRR)
   Internal Rate of Return before tax
   Modified Internal Rate of Return (MIRR)
   Profitability Index (PI)
   Discounted Value Added (DCVA)
   Payback time, years
   Simple Payback, years
   EBITDA; Operating income before depreciation, USD
   EBITDA, %
   EBIT; Operating income, USD
   EBIT, %

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Return on net assets (RONA), %
Economic Value Added (EVA), USD

If Free cash flow to equity (FCFE) based profitability calculation is used, the following variables are furthermore included:

Net Present Value to equity (NPVe)
Internal Rate of Return to equity (IRRe)
Internal Rate of Return to equity before tax
Modified Internal Rate of Return to equity (MIRRe)
Payback time to equity, years
Simple Payback to equity, years

Any Key financial ratio defined in the Key Financials table si also included.

Note that all variables may not be included if the calculation file is created with an older version of Invest for Excel

6) Select the **change in value** percentages (sensitization), and
7) Click **OK.**

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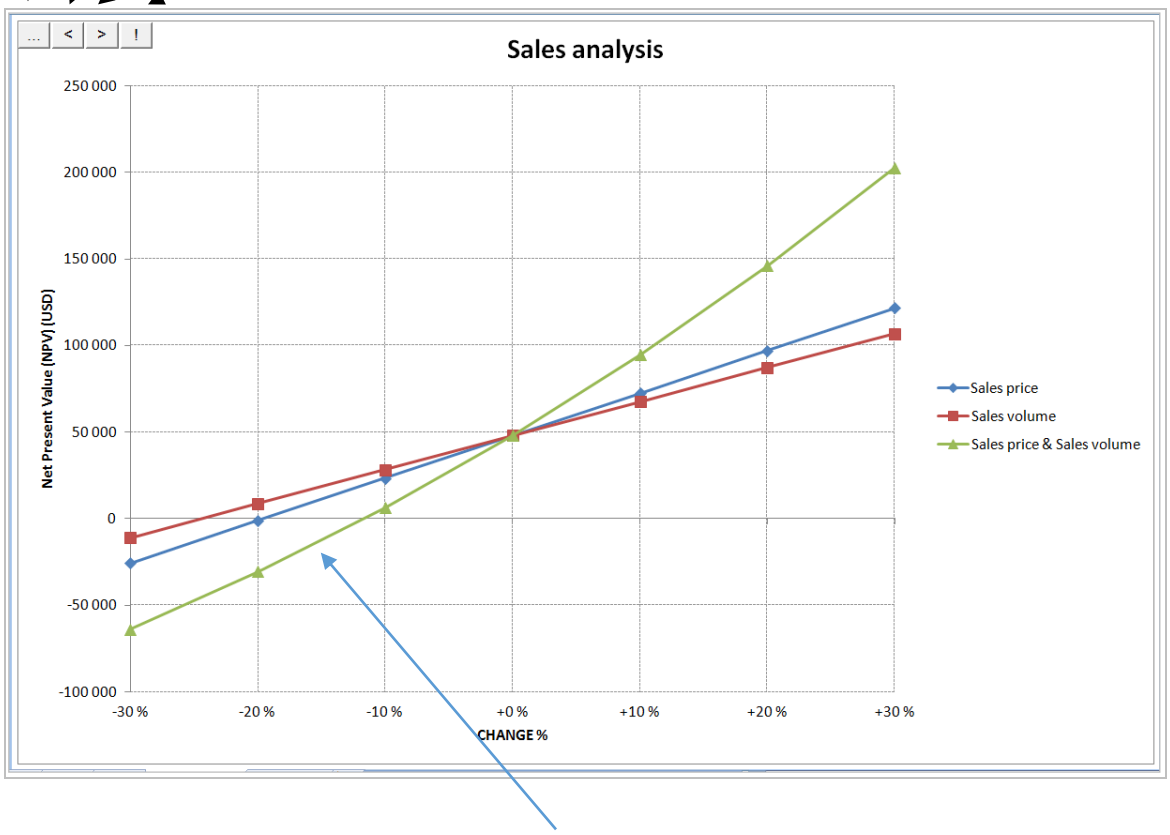
The buttons at the top from left to right:

The first button returns to the **Create Analysis Chart** screen.

The second button returns to the previous table or chart.

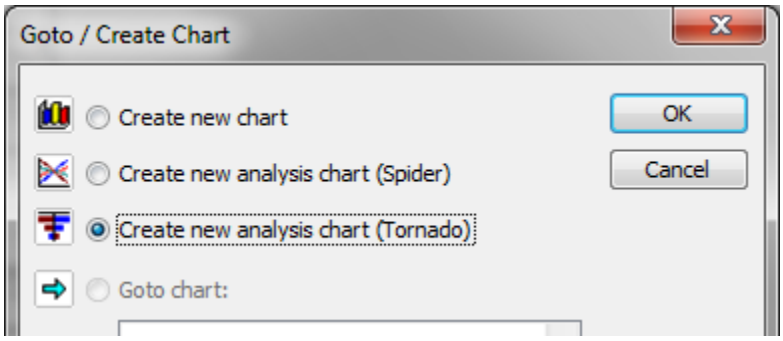
The third button goes to the next table or chart.

The Exclamation mark button updates the chart (if the figures in the calculation have changed).

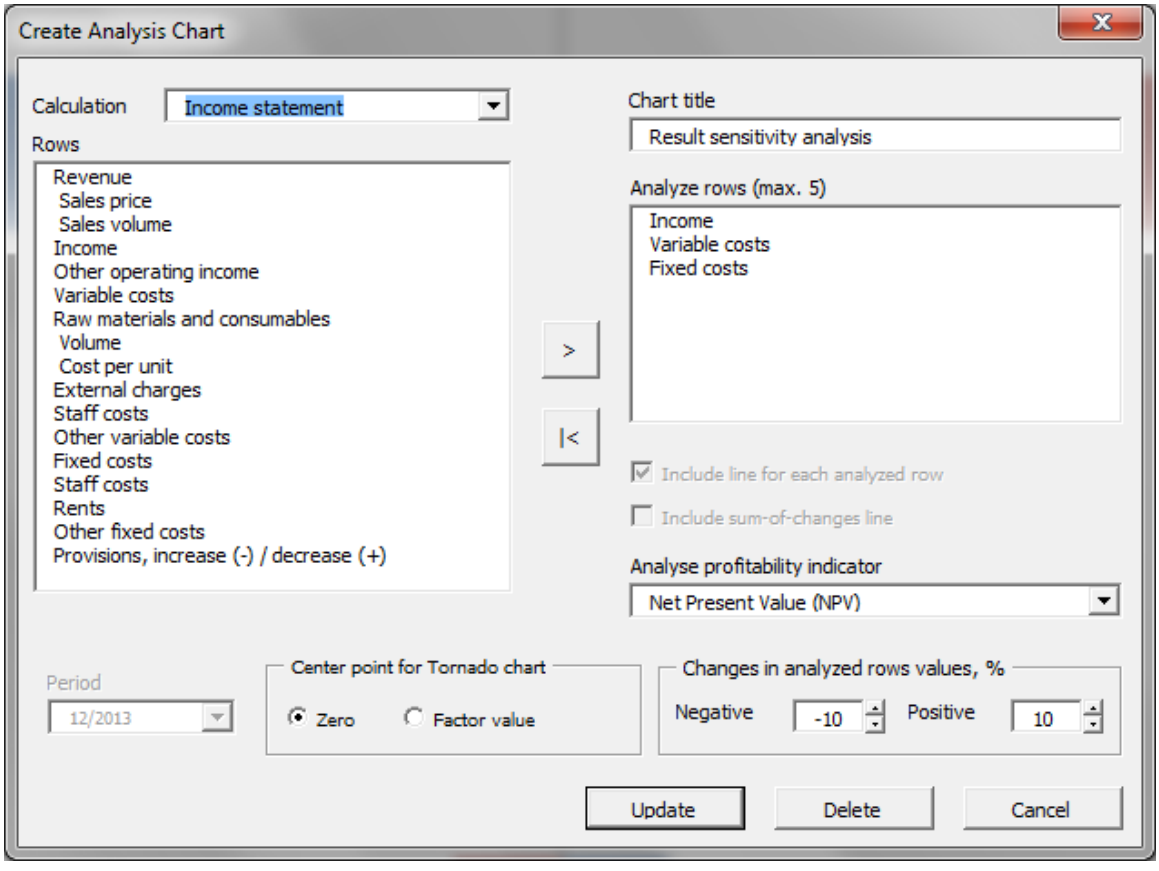


The chart above shows that a 15% drop in turnover (price*volume) output leads to negative NPV.

5.8.3 Create new Sensitivity Analysis chart (Tornado)



A Tornado analysis chart type is available as an option to the traditional Spider analysis chart. The Tornado chart shows how a selected result factor is affected when selected calculation rows are changed by selected minus and plus percentages.



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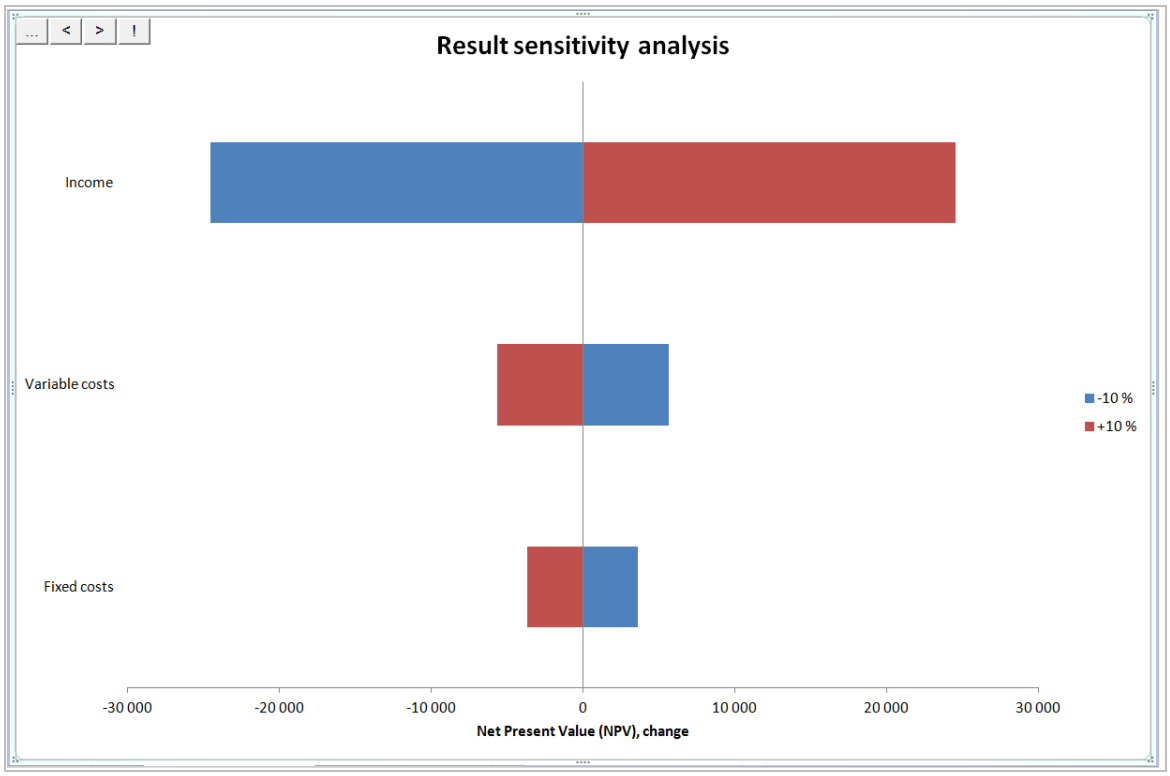
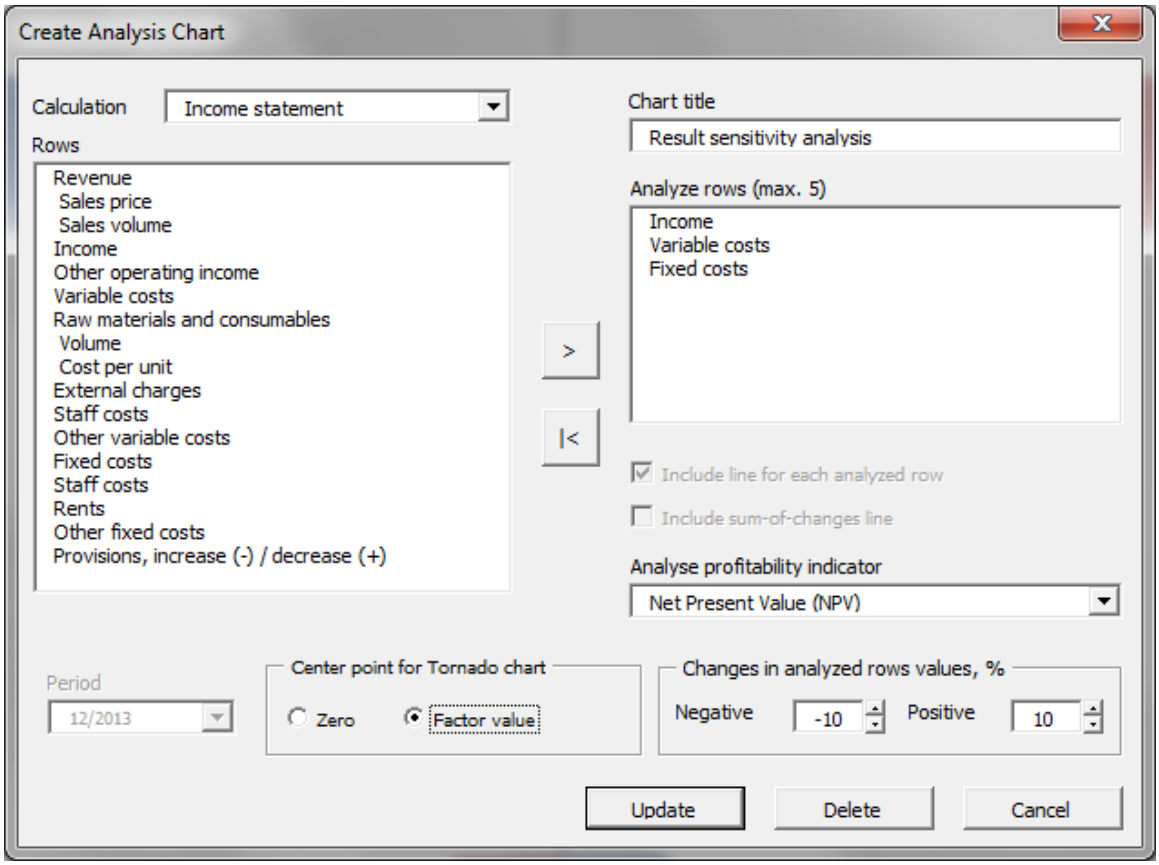
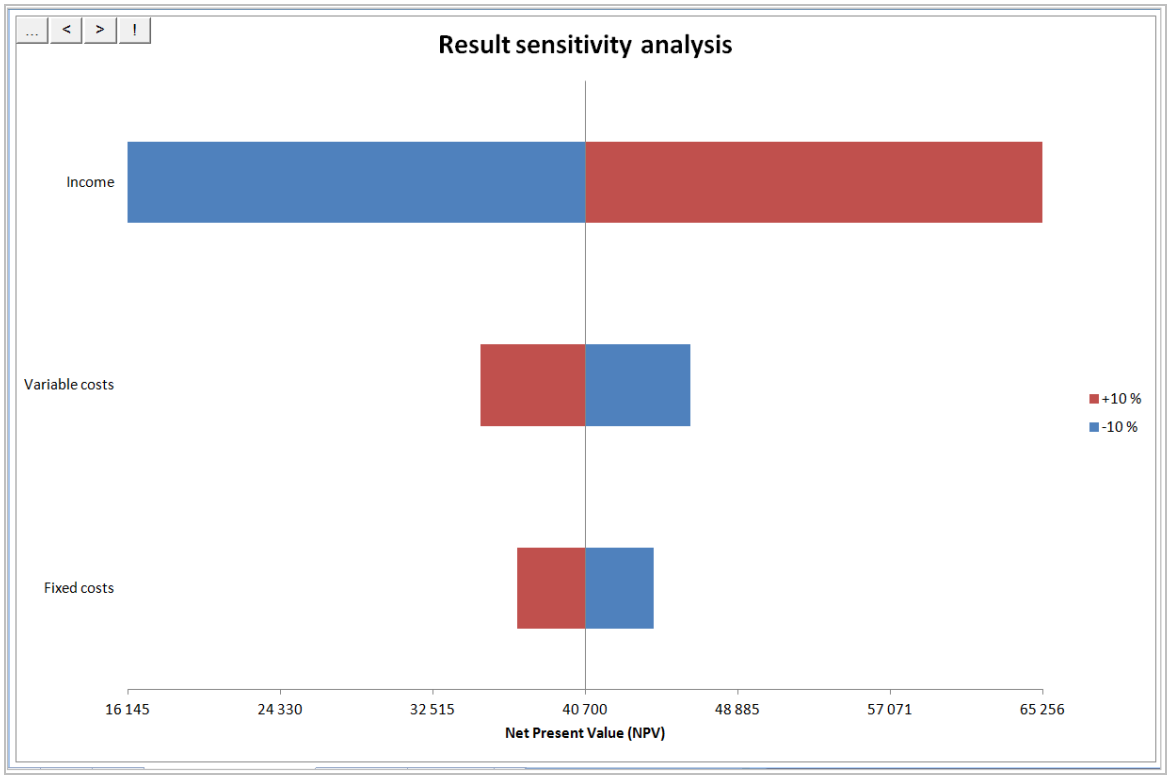


If the factor value is selected as Center value, the chart will show the actual value of the changed result factor.





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5.9 Cell Break-Even

By running the Cell Break-Even function, you can quickly calculate the break-even point of the investment, for example how much certain incomes can drop, or costs rise, while the NPV falls to zero level, meaning that if implemented with the given target interest rate, the investment would, theoretically, only just be feasible.

Note! The Cell Break-Even command changes the calculation file, and therefore it is good practice to save the file before running the Cell Break-Even function.

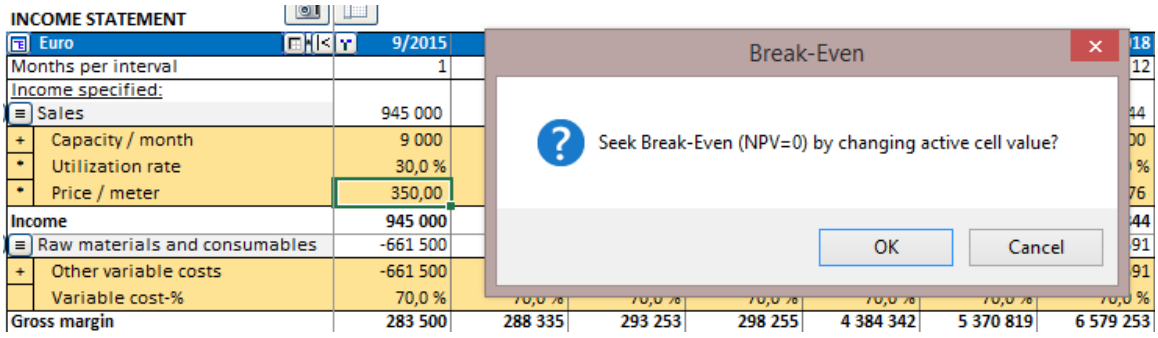
To start the Cell Break-Even:

1. First select the cell containing a value you want to analyse.
2. Then select from Invest for Excel's menu **Analysis - Cell Break-Even,** or click the -button.
3. To restore the status afterwards, select from the same menu **Cancel Break-Even.**

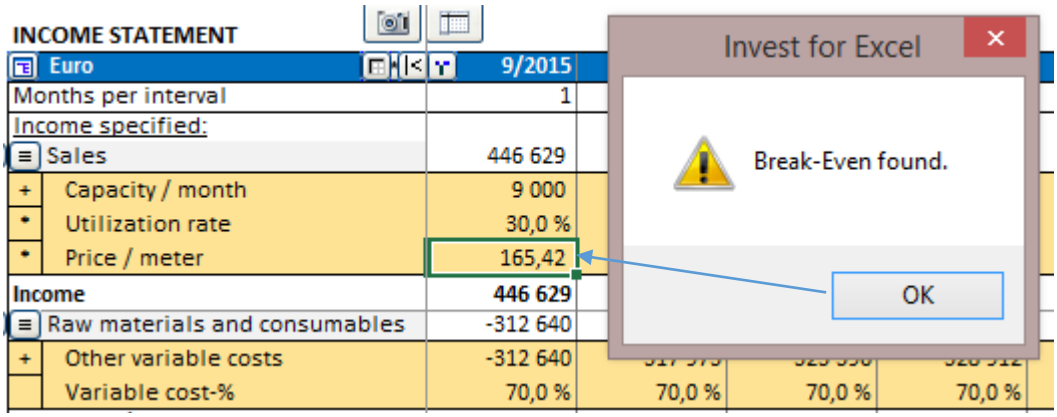
Let us assume that you have defined the following income items (NPV is positive):

Months per interval	1	1	1	1	12
Income specified:					
≡ Sales	945 000	961 117	977 510	994 182	14 614 473
+ Capacity / month	9 000	9 000	9 000	9 000	108 000
• Utilization rate	30,0 %	30,6 %	31,1 %	31,7 %	39,7 %
• Price / meter	350,00	349,41	348,82	348,24	341,27
Income	**945 000**	**961 117**	**977 510**	**994 182**	**14 614 473**

You now want to analyse how low the selling price could be before the NPV of the investment becomes negative. Choose the first cell containing the selling price and run Cell Break-Even. You will be asked the question:



Choose **OK**. When the Break-Even point has been found, Invest for Excel informs you as follows:



The Break-Even function now told us that the Break-Even of the Sales price / ton is 165.42 €, which is much lower than the planned price (350 €).

The **Profitability analysis** screen shows that net present value is zero (NPV=0) in the table:

Total investment capital	**2 400 000**
Required rate of return	**17,30 %**
Calculation term	**10,0**
Calculation point	**1/2005**
Present value of net cash flow	-56 094
Present value of residual value	56 094
Net Present Value (NPV)	**0**
↳ NPV as a monthly annuity	0
Discounted Value Added (DCVA)	-26 048
Internal Rate of Return (IRR)	17,30 %
Profitability Index (PI)	1,00
Payback time	-

Hint! Use Copy/ Distribute function to create dependence between columns, otherwise only the value in one cell is changed!

5.9.1 Undo Cell Break-Even

In *Invest for Excel*'s main menu, under the **Analysis** column, the 2nd to last item is **Undo Break-Even**. True to its name, this function enables you to restore the situation prior to looking for the break-even point.

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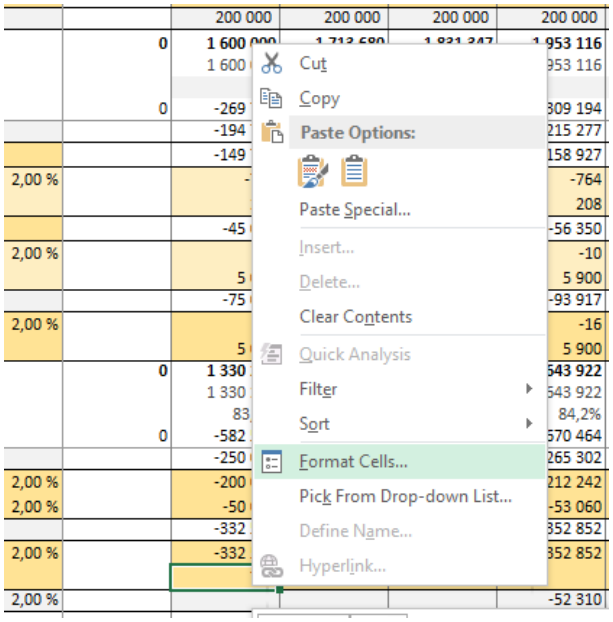
6 Format

6.1 Formatting cells

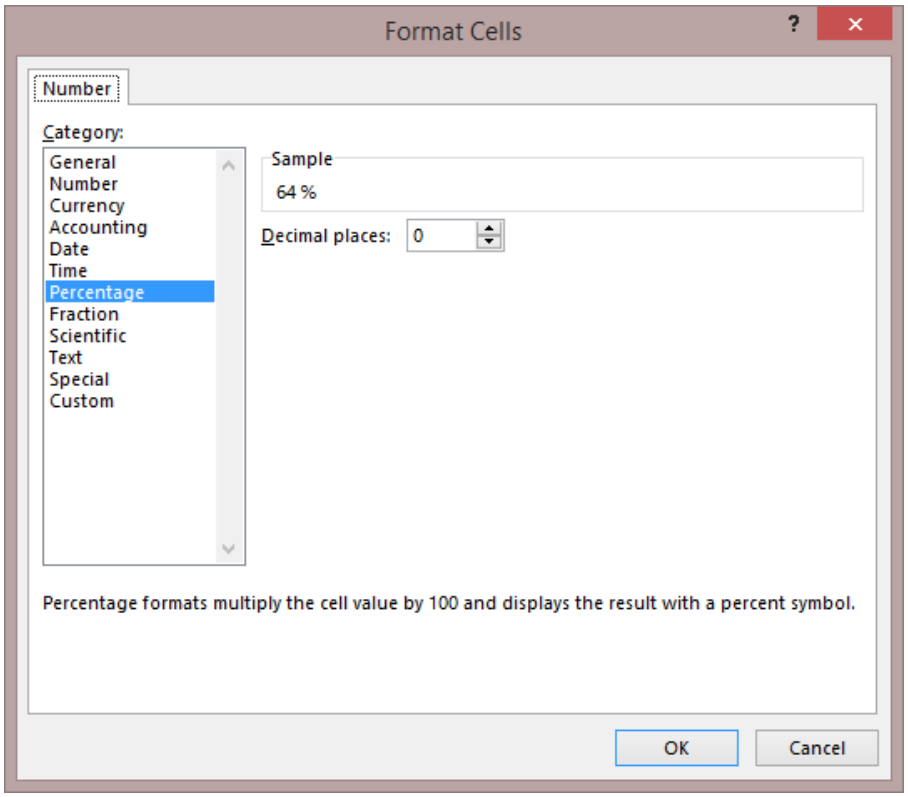
Formatting calculation file cells is allowed using Microsoft Excel's menus and shortcuts.



Some of Excel's formatting functions are accessible from the Invest for Excel menu. The interface language of the dialogue box has been defined already when installing the Microsoft Office package or Excel. The **Change Language** function will not work here.

6.2 Number

This is Excel's *Format - Cell* function. Here you define the format in which figures are presented.



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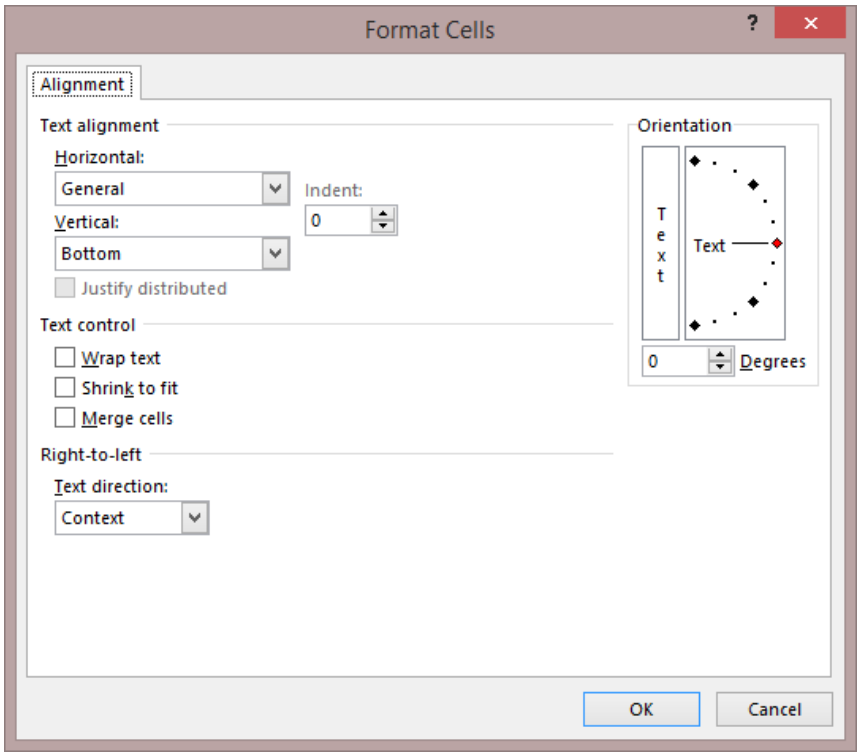
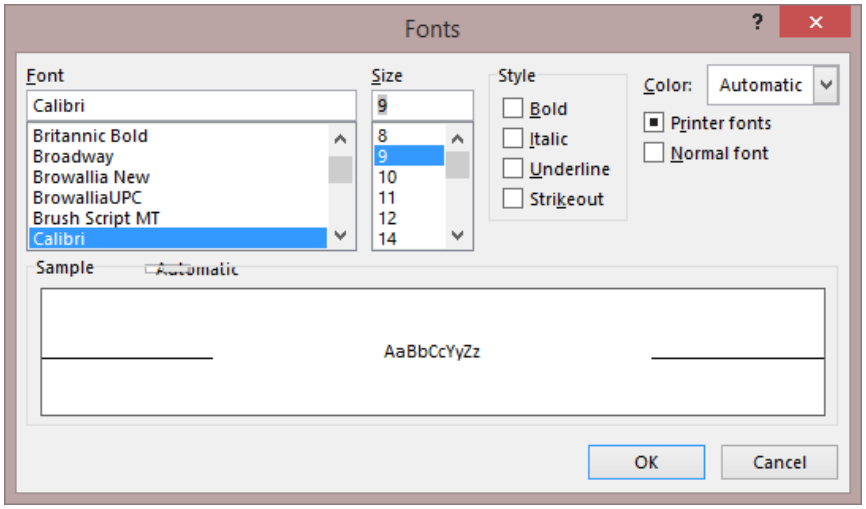
6.3 Text Alignment

Use Excel's *Alignment* function to align text in active cells.



6.4 Font



This is Excel's *Format - Fonts…* function. Here you define the font in which text and numbers are displayed.

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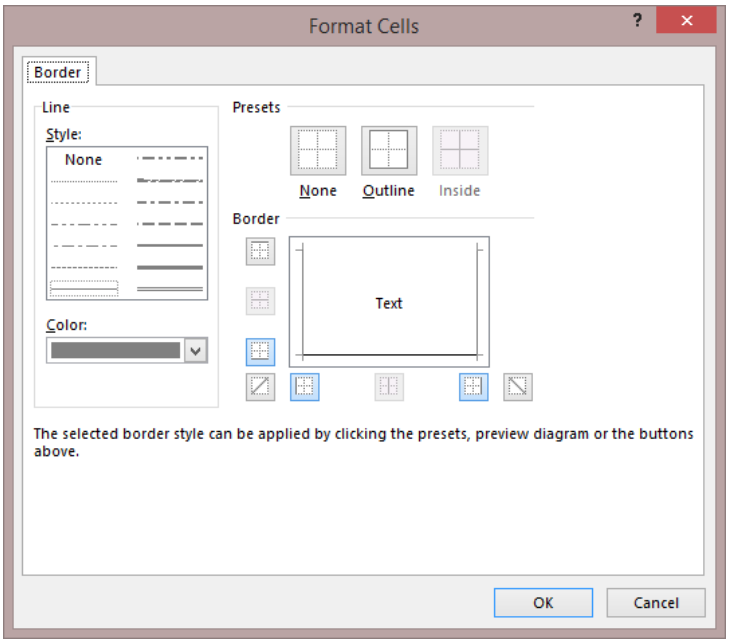
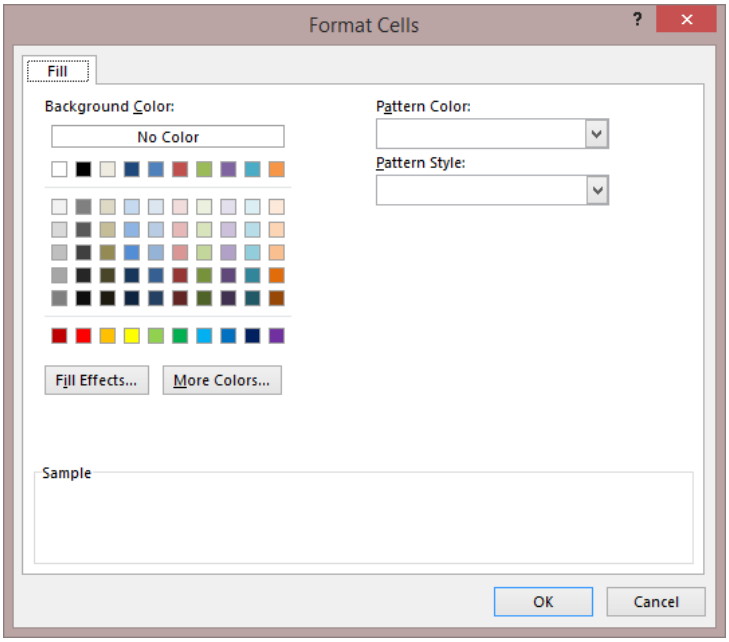
6.5 Borders



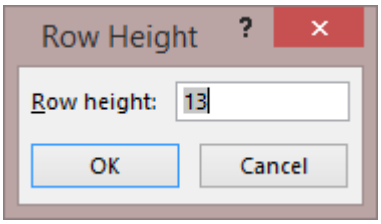
Use Excel's *Format-Cell* function to change the borders style and color of the column where the cursor is.

6.6 Format pattern



Format pattern command. This Microsoft Excel-command allows you to change the cell pattern of selected cells:

6.7 Row Height



Use Excel's *Row Height* function to set the height of the row where the cursor is.

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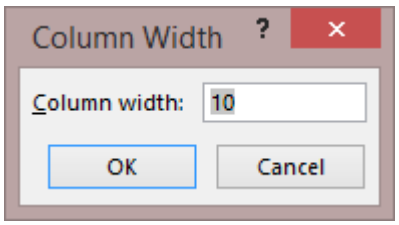
6.8 Column Width



Use Excel's *Column Width* function to set the width of the column where the cursor is.

6.9 Mark/Unmark unlocked cells

In Invest for Excel the unlocked cells are marked with grey or yellow background colour:

Income specified:			
Sales		500 000	500 000
New sales		250 000	300 000
Old sales		250 000	200 000

With this function you can remove and return the background colours:

Income specified:			
Sales		500 000	500 000
New sales		250 000	300 000
Old sales		250 000	200 000

6.10 Arrange Buttons

In case Excel misplaces some of the buttons in Invest for Excel calculation file, you can use this function to put them back in the right places.

6.11 Insert worksheet

Here is one way of including a table to the workbook you are using. The table or tables are appended to your investment calculation and any changes in them are relayed to the actual Invest for Excel tables through links.

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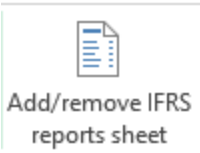
For example, you can separate and calculate the total of fixed costs in a table like this. When you have established a link e.g. between the Income statement and the separate table of fixed costs, all changes in the fixed costs are also relayed to the Invest for Excel calculations.

Note that you can rename, move and delete an inserted sheet like any Excel sheet.



An optional IFRS reports sheet can be added to a calculation file in the Enterprise edition of Invest for Excel. See chapter 11.2 below for details.

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7 Other

7.1 Home Screen

We call the start-up window of the Invest for Excel program the **Home Screen**. The Home Screen functions also as a menu, from which you can go to almost every part of the Invest for Excel program by clicking the Home Screen buttons.

7.2 Change Language

The **Change Language** function is quite useful. It changes the language of parts of the program as selected. In addition to the text in tables, the language of printouts and the Manual texts will change. You can make use of all the languages (**English, Finnish, Swedish, German, Polish, Spanish and Russian**).

You can change language by clicking the globe icon in the Home Screen or from the Invest for Excel menu "**Other – Change Language…**".

It is possible to change the language separately for:

- The commands of the Invest for Excel program,
- Any Calculation file,
- Any comparison file, and
- Any investment proposal file.
- Any financing file
- Any impairment test verification file.

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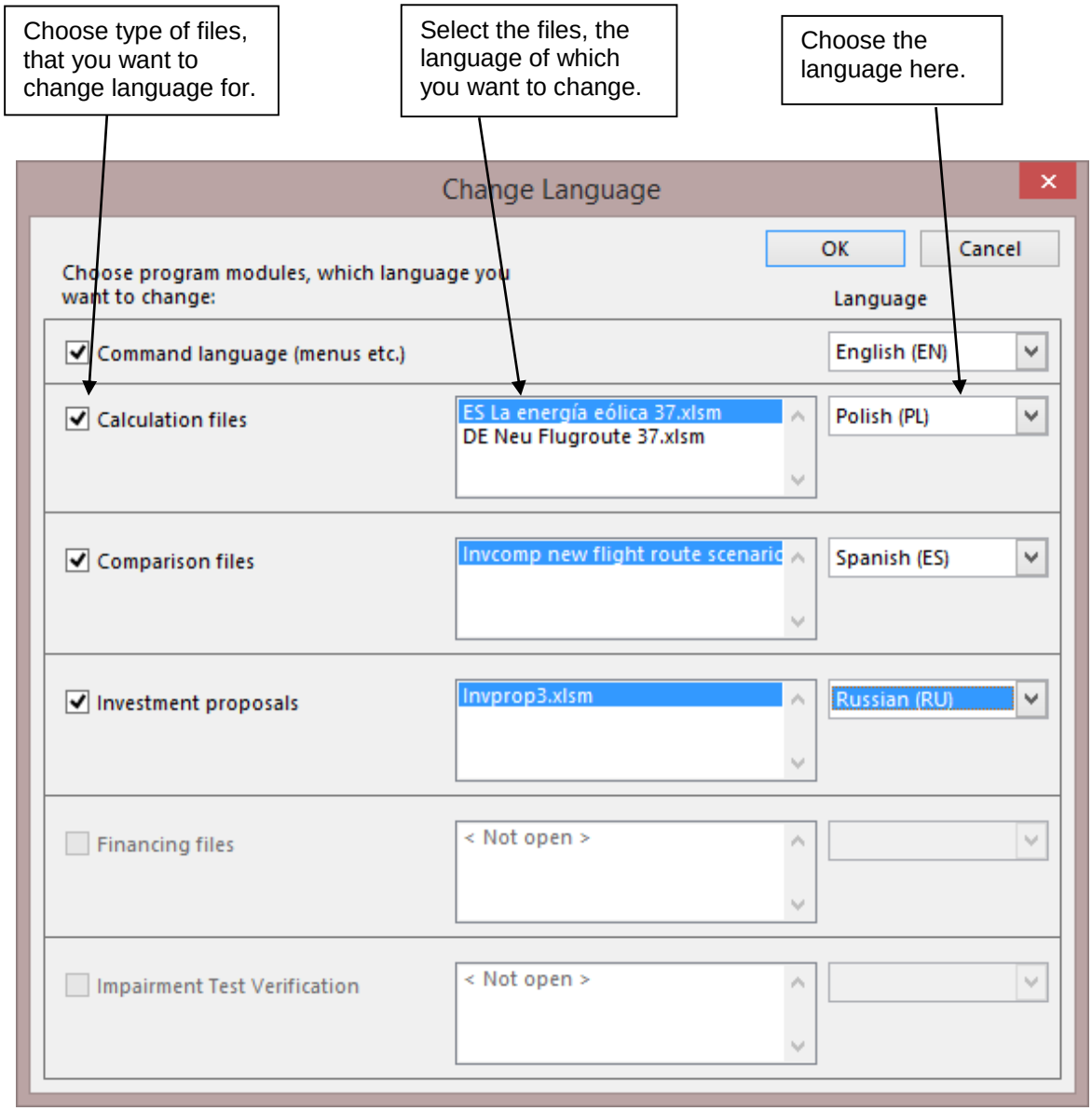

If several files are open at the same time, the program lists them all. Select the file(s), of which you want to change the language. The file must be open for this function to work. Changing the language will not affect Excel's own dialog boxes.

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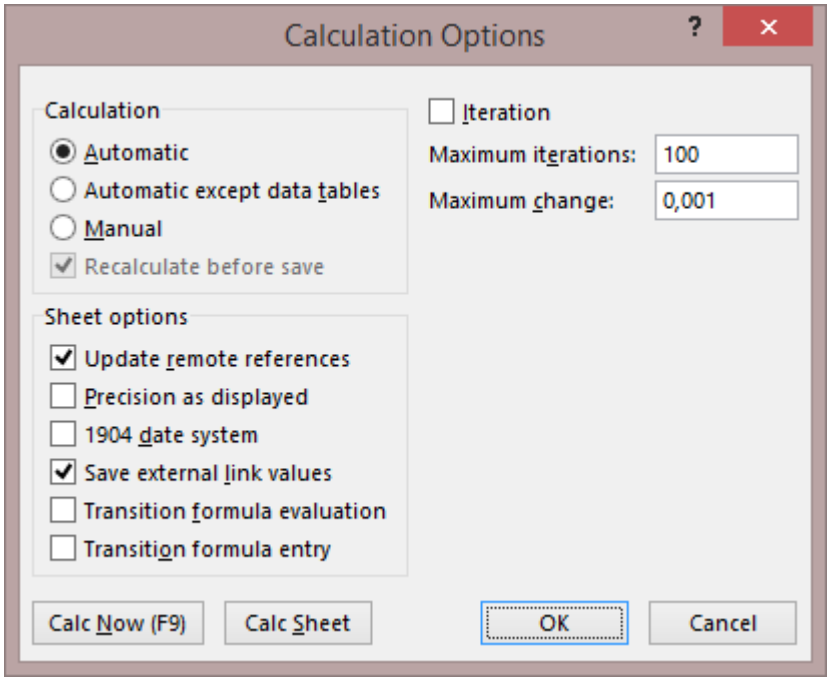
7.3 Calculation



In the **Calculation Options** dialog box you can adjust *Invest for Excel*'s manner of calculating. In practice, you are unlikely to need to change the default settings. One reason might be that you have devised formulas for calculations requiring iteration. Being an Excel function, it will work in the same language as your Excel. For more information, refer to Excel's **Help** function.
Open the Calculation dialog box from Invest menu Other – Calculation – Calculation (Excel).

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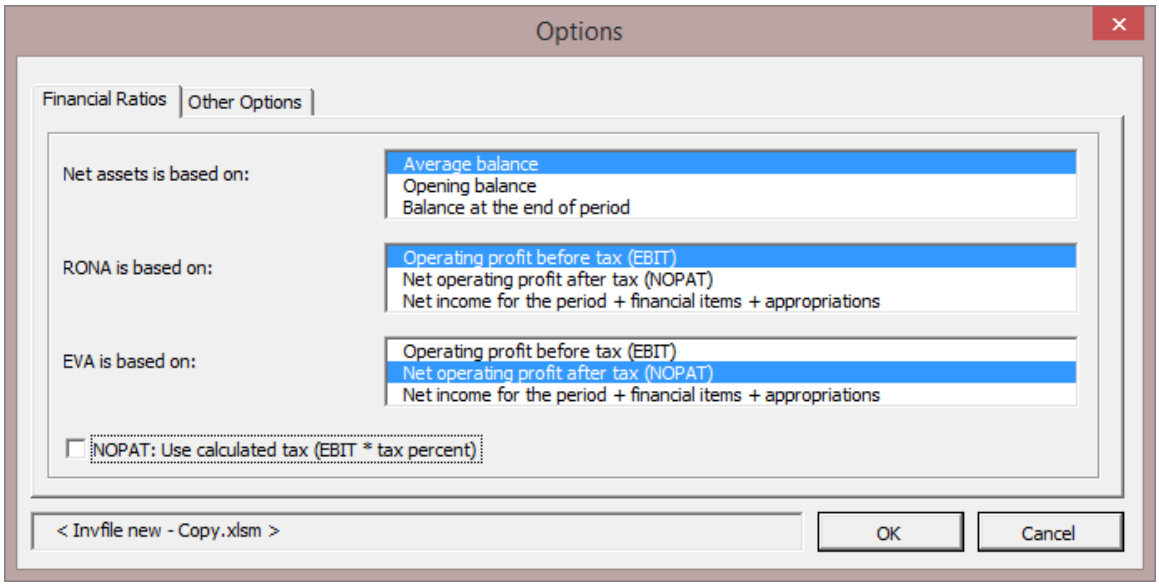
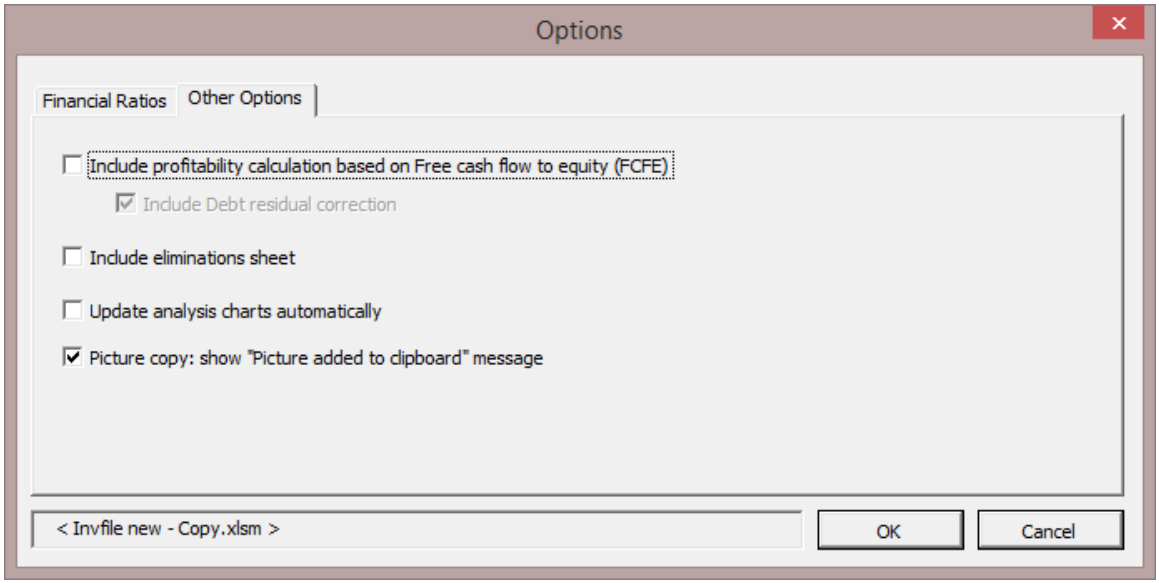
7.4 Options

Define how financial ratios Net assets, RONA and EVA are calculated in a new calculation file or, if an calculation file is active, in the active calculation file. Financial ratios are described further in chapter 3.259 Financial ratios


Options
Financial Ratios
Other Options
Net assets is based on:
Average balance
Opening balance
Balance at the end of period
RONA is based on:
Operating profit before tax (EBIT)
Net operating profit after tax (NOPAT)
Net income for the period + financial items + appropriations
EVA is based on:
Operating profit before tax (EBIT)
Net operating profit after tax (NOPAT)
Net income for the period + financial items + appropriations
NOPAT: Use calculated tax (EBIT * tax percent)
< Invfile new - Copy.xlsm >
OK
Cancel

7.4.1 Other Options:



1st option, see chapter 4.1.3 Profitability calculation based on Free cash flow to equity (FCFE).
2nd option, see chapter 4.6.4.2 Elimination of internal transactions.
3rd option, you can choose to have sensitivity analyses updated automatically every time you activate a sheet including a sensitivity analysis.

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7.5 Insert comment

You can insert a comment to any input cell. It makes sense to use this function often to jog your memory, or to assist other users of the program. The text of the comment is usually hidden. Cells with a comment inserted have a small red dot in the top right corner. To display a comment, move the cursor to the cell.

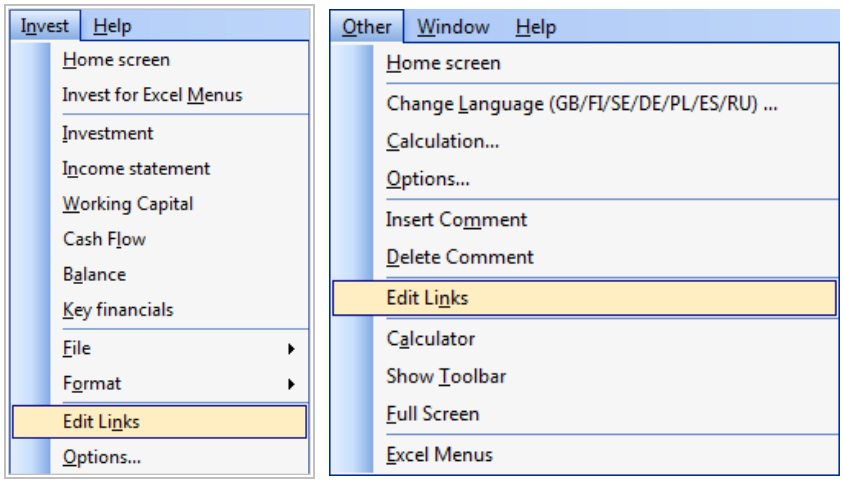
7.6 Delete comment

Deletes comment in active cell. Select cell and choose "Delete comment" from the "Other" menu.

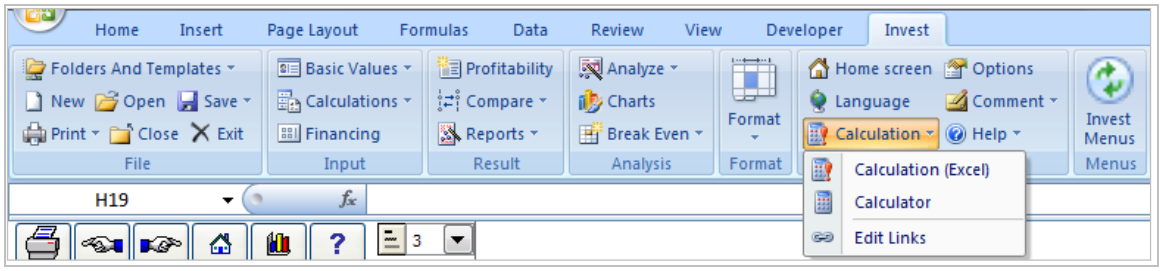
7.7 Edit links

Links to external documents can be edited from Invest for Excel's menus.

Excel 2003:



Excel 2007:



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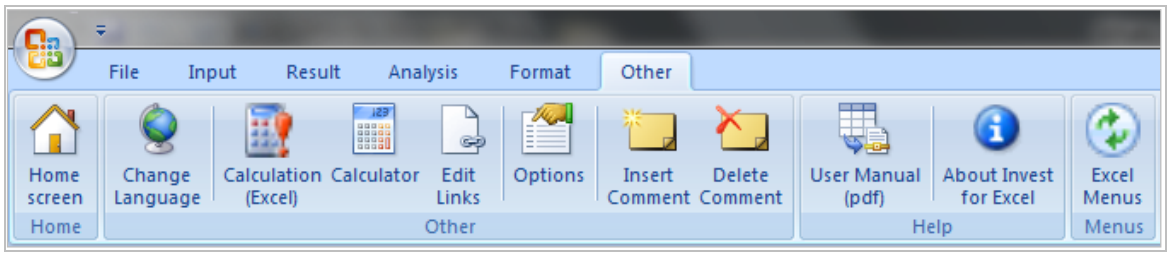

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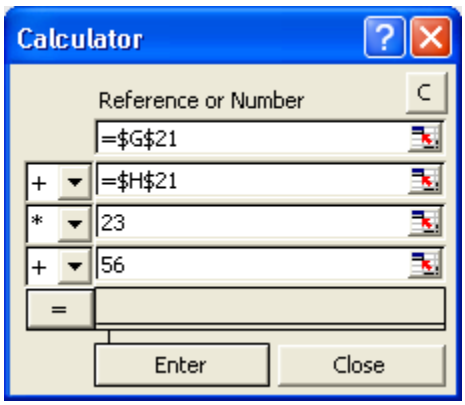
7.8 Calculator



How to use the calculator: Click an input field of the calculator and enter a number (see the example above). You can also add references to the calculator. To do this, click one of the fields in the calculator with the mouse. Then click the cell in the calculation table that contains the reference value (see the example above).

Use the left mouse button to choose a calculation operator (+ - * /), from the pull down menus. Click the **Enter** button to copy the result to the active cell in the calculation table.

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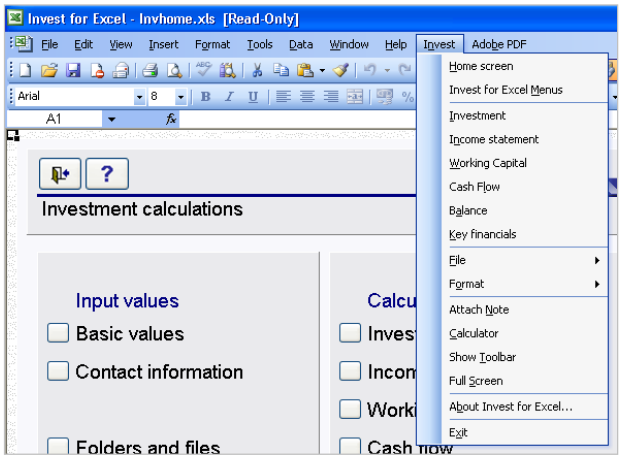
7.9 Excel menus

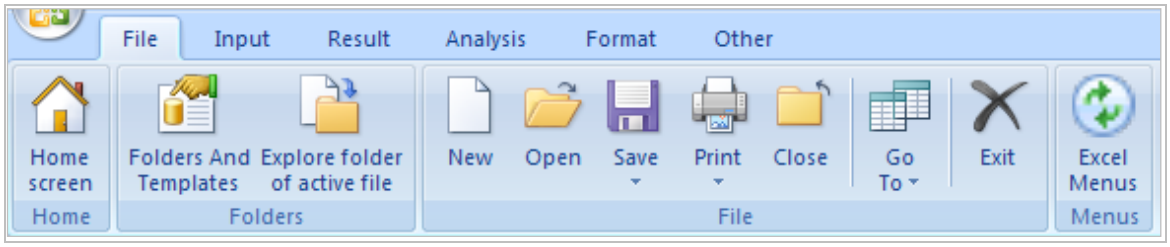
This function changes the Invest for Excel menus to Excel menus. Excel menus enable you to make better use of Excel's functions. Please note, though, that an additional menu has appeared under the Excel menu: Invest. It contains some of Invest for Excels functions.

7.9.1 Invest for Excel Menus

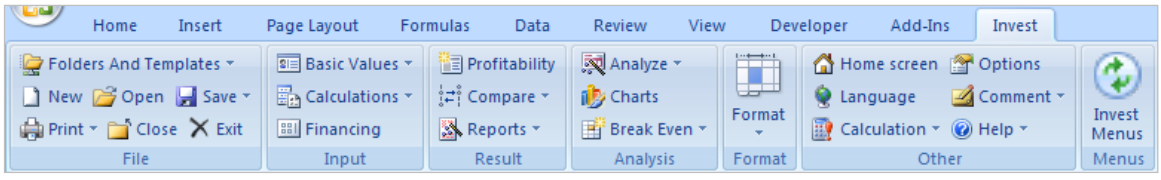
This function enables you to restore the Invest for Excel menu structure.



In Excel 2007, the ribbon menu is modified to include Invest for Excel commands. Full Invest for Excel-menus:



Short Invest menu as part of Excel menus:



7.9.2 Menu setting at startup

Invest for Excel remembers menu setting so that, if Excel menus were active the last time the program was closed, Excel menus will be active at the next startup.

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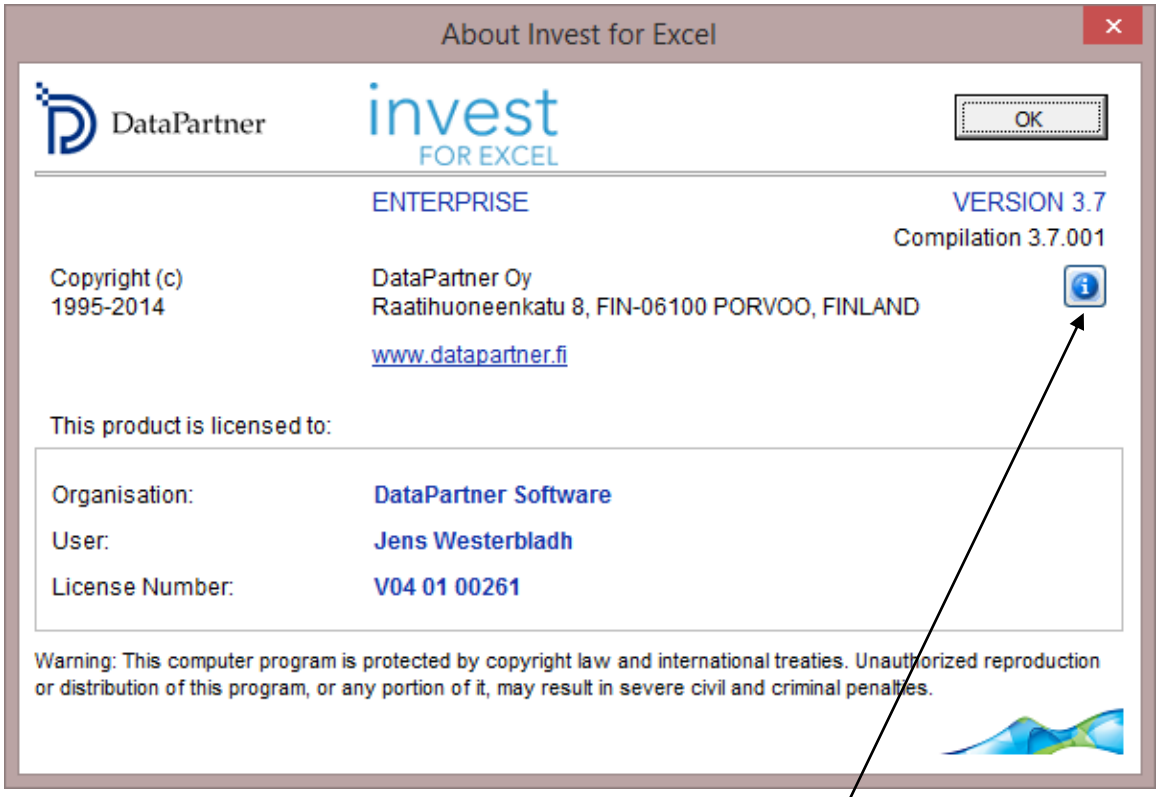
8 Help

8.1 User Manual

Opens User manual (pdf format).

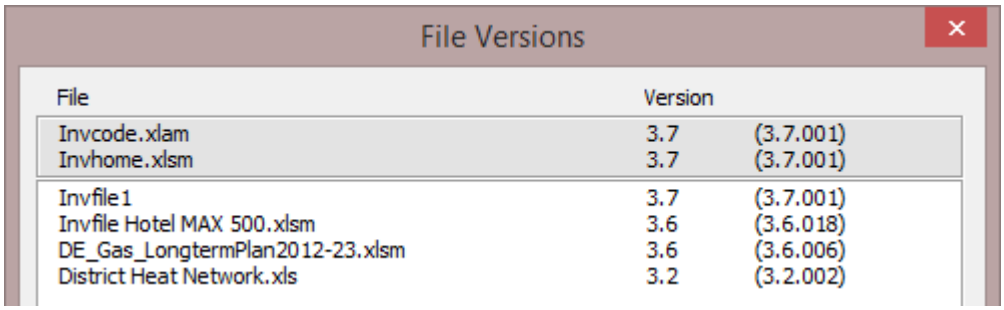
8.2 About Invest for Excel

This dialog box shows the version of the program and to whom it is licensed:



The compilation number shows the exact release of your version of Invest for Excel.

By pressing the button, you get file version information on files:



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9 Balance sheet (Pro- and Enterprise edition)

As a feature, Balance Sheet gives the person doing investment calculations new scope. This feature complements Invest for Excel calculations, but its use is by no means obligatory.

Like other tables, the Balance Sheet table has been divided into intervals. It contains links to figures and sums from other tables as default. To unhide the **Balance Sheet** categories (and hide again), click these buttons:

9.1 Fixed assets and other long-term investments

INTANGIBLE ASSETS, TANGIBLE ASSETS, INVESTMENTS

If you have checked the ”Include Historical Data” option in the Calculation term dialog box, you can enter historical balances in the left hand columns. The last history period balance acts as the opening balance for the investment calculation. The figures belonging to this group, which have been entered in the Investments table, will be shown by default.

9.1.1 Intangible assets

There are four asset types under this heading: **Immaterial rights, Capitalized development costs, Goodwill** and **Other intangible assets.**

For each fixed asset type there are three rows. The first row, ending in "(specified)", shows asset investments specified in the investment table.

The second row shows the book value entered in historical period after depreciation.

The third row shows the depreciation of the historical book value. You can choose between three depreciation methods: straight-line, declining balance or enter manually. Choose from the drop down menu. Enter the depreciation percentage in the grey cell to the right of the drop down menu, if straight-line or declining balance deprecation.

9.1.2 Tangible assets

There are four asset types under this heading: **Machinery and equipment, Buildings and structures, Land and water** and **Other tangible assets.**

For each fixed asset type there are three rows. The first row, ending in "(specified)", shows asset investments specified in the investment table.

The second row shows the book value entered in historical period after depreciation.

The third row shows the depreciation of the historical book value. You can choose between three depreciation methods: straight-line, declining balance or enter manually. Choose from the drop down menu. Enter the depreciation percentage in the grey cell to the right of the drop down menu, if straight-line or declining balance deprecation.

9.1.3 Investments

There are four asset types under this heading: Investments in associated companies, Deferred tax assets, Long-term loans receivable and Other investments.

For each fixed asset type there are three rows. The first row, ending in "(specified)", shows asset investments specified in the investment table.

The second row shows the book value entered in historical period after depreciation.

The third row shows the depreciation of the historical book value. You can choose between three depreciation methods: straight-line, declining balance or enter manually. Choose from the drop down menu. Enter the depreciation percentage in the grey cell to the right of the drop down menu, if straight-line or declining balance deprecation.

9.2 Inventories and current assets

INVENTORIES, RECEIVABLES, BANK AND CASH

Enter the balances for history periods only. The figures entered the working capital calculation, or taken from the Income statement based on rotation days, are shown by default.

9.2.1 Inventories and work in progress

This row shows the sum total of all inventories in the Working capital table. Note that, if you enter an opening balance, it can affect the change in working capital and that way, the result of the investment calculation.

9.2.2 Receivables

The balance of accounts receivable and other receivables entered in the Working Capital table are shown here. Note that, if you enter an opening balance, it can affect the change in working capital and that way, the result of the investment calculation.

9.2.3 Bank and Cash

This row shows the cash situation at any time. It should be equal to total cumulative cash flow in the cash flow table + minimum cash reserve (if entered) in the working capital table.

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An example balance sheet:

BALANCE SHEET

			12/2005	1/2006	12/2006	12/2007	12/2008	12/2009
Months per interval			12		12	12	12	12
ASSETS								
Fixed assets and other non-current assets								
Intangible assets			1 250	1 250	1 000	750	500	250
Immaterial rights			0	0	0	0	0	0
Capitalized development costs			0	0	0	0	0	0
Goodwill			0	0	0	0	0	0
Other intangible assets			1 250	1 250	1 000	750	500	250
Other intangible assets (specified)			0	0	0	0	0	0
Other intangible assets		1 250	1 250	1 250	1 000	750	500	250
- Depreciation	Straight line	20,0 %		0	-250	-250	-250	-250
Tangible assets			348 000	363 000	355 740	313 480	271 220	228 960
Machinery and equipment			26 000	41 000	31 500	22 000	12 500	3 000
Machinery and equipment (specified)			0	15 000	12 000	9 000	6 000	3 000
Machinery and equipment		26 000	26 000	26 000	19 500	13 000	6 500	0
- Depreciation	Straight line	25,0 %		0	-6 500	-6 500	-6 500	-6 500
Buildings and structures			322 000	322 000	324 240	291 480	258 720	225 960
Buildings and structures (specified)			0	0	28 000	21 000	14 000	7 000
Buildings and structures		322 000	322 000	322 000	296 240	270 480	244 720	218 960
- Depreciation	Straight line	8,0 %		0	-25 760	-25 760	-25 760	-25 760
Land and water			0	0	0	0	0	0
Other tangible assets			0	0	0	0	0	0
Investments			0	0	0	0	0	0
Total fixed assets and other non-current assets			349 250	364 250	356 740	314 230	271 720	229 210
Current Assets								
Inventories and work in progress			12 500	12 500	20 000	19 440	18 852	18 235
Accounts receivable				0	1 944	1 983	2 023	2 063
Other receivables				0	0	0	0	0
Bank and cash			53 950	38 950	27 706	42 727	58 489	76 208
Total Current Assets			66 450	51 450	49 650	64 150	79 364	96 506
ASSETS			**415 700**	**415 700**	**406 390**	**378 380**	**351 084**	**325 716**
SHAREHOLDERS' EQUITY AND LIABILITIES								
Shareholders' equity								
Share capital			45 000	45 000	45 000	45 000	45 000	45 000
Share issue premium				0	0	0	0	0
Other restricted equity				0	0	0	0	0
Retained earnings			124 500	124 500	124 500	116 990	110 180	104 084
Profit (loss) for the period			0	0	-7 510	-6 810	-6 096	-5 368
Total shareholders' equity			169 500	169 500	161 990	155 180	149 084	143 716
Accumulated appropriations				0	0	0	0	0
Minority interest				0	0	0	0	0
Liabilities								
Long-term liabilities			234 000	229 000	209 000	189 000	169 000	149 000
Interest-bearing long-term debt			202 000	197 000	177 000	157 000	137 000	117 000
Interest-free long-term debt			32 000	32 000	32 000	32 000	32 000	32 000
Short-term liabilities			12 200	17 200	35 400	34 200	33 000	33 000
Total liabilities			246 200	246 200	244 400	223 200	202 000	182 000
SHAREHOLDERS' EQUITY AND LIABILITIES			**415 700**	**415 700**	**406 390**	**378 380**	**351 084**	**325 716**

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9.3 Shareholder's equity and liabilities

9.3.1 Shareholder's Equity

Share capital, share issue premium and other restricted equity:

In addition to the opening balance item, increase/decrease in equity given in the cash flow table has an effect on this row.

Retained earnings: The profit/loss of the financial period accumulated. Dividends entered in the cash flow table, are subtracted from this row.

Profit (loss) for the period: Profit (loss) for the period (cumulative financial year) from the Income statement.

9.3.2 Accumulated appropriations and minority interests

The changes of accumulated appropriations and minority interests come from the Income statement, the balance is shown here.

9.3.3 Liabilities

Long-term Liabilities:
Long-term liabilities are divided in interest-bearing and interest-free long-term debt.

In addition to the opening balance, increases and decreases entered in the cash flow table will change these items. The current portion of long-term debt is shown separately under short-term liabilities.

Short-term Liabilities:
Short-term liabilities are divided in interest-bearing and interest-free short-term debt.

Interest-bearing short-term debt include short-term borrowings, which can be altered in the cash flow table, and current portion of long-term debt, which is calculated from changes to long-term debt, entered in the cash flow table. Example:

CASH FLOW STATEMENT	12/2005	12/2006	12/2007	12/2008	12/2009	12/2010	12/2011
Long-term debt, increase (+) / decrease (-)	1,600,000	0	-200,000	-190,000	-180,500	-171,475	-162,901
Changes in interest bearing long-term debt	1,600,000	0	-200,000	-190,000	-180,500	-171,475	-162,901
Long-term debt, increase (+) / decrease (-)	1,600,000		-200,000	-190,000	-180,500	-171,475	-162,901

BALANCE SHEET	12/2005	12/2006	12/2007	12/2008	12/2009	12/2010	12/2011
Long-term liabilities	1,600,000	1,400,000	1,210,000	1,029,500	858,025	695,124	540,368
Interest bearing long-term debt	1,600,000	1,400,000	1,210,000	1,029,500	858,025	695,124	540,368
Interest-free long-term debt	0	0	0	0	0	0	0
Short-term liabilities	0	200,000	190,000	180,500	171,475	162,901	154,756
Interest-bearing short-term liabilities	0	200,000	190,000	180,500	171,475	162,901	154,756
Short-term borrowings	0	0	0	0	0	0	0
Current portion of long-term loans	0	200,000	190,000	180,500	171,475	162,901	154,756

Accounts payable and Other interest-free short-term debt can be changed in *short-term liabilities* in the *Working Capital* table.

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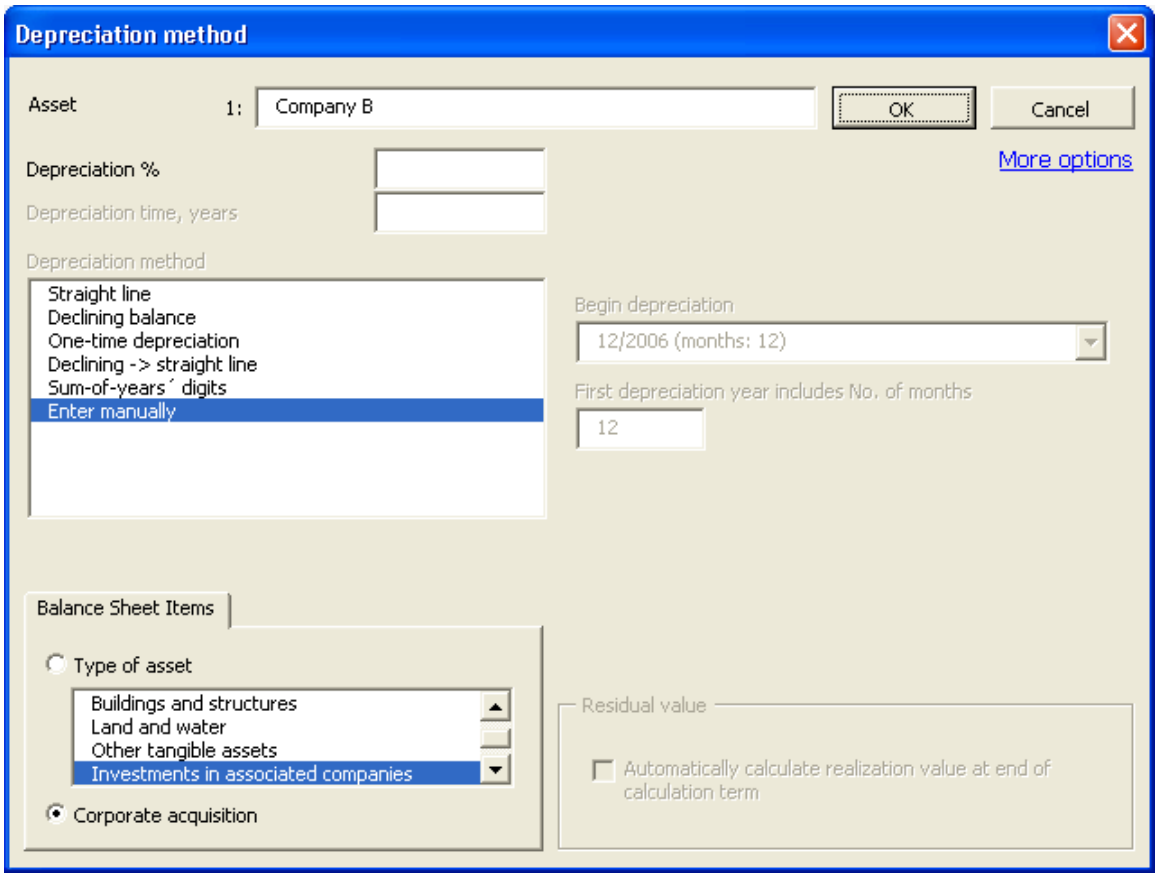
10 Corporate acquisition (Enterprise edition)

Investment as a concept and the Invest for Excel tool are much more than the investments made in tangible assets, such as machinery, equipment and buildings in order to increase productivity, or the related profitability calculations. The program can also help you in the profitability evaluation of an acquisition of a business or a business function. The profitability can be calculated by feeding in the data on the income and costs related to the acquisition of a business or a business function and the future cash flow. The calculation will also return the recommended maximum purchase sum based on this information.

10.1 Investment

When starting an acquisition calculation, select New - Calculation file in the Invest for Excel menu and corporate acquisition as the calculation type.

The Corporate acquisition calculation type is selected only when Company A (buyer) evaluates the profitability of acquiring Company B (the business or function to be acquired). The Invest for Excel calculation is made of Company B and it shows the effects of the acquisition on Company A (goodwill). In the Depreciation screen, select the ”Corporate Acquisition” option when entering the purchase price of the corporate acquisition.



As a default, the first investment in the investment table is defined as corporate acquisition in a new investment calculation.

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The basic data of the investment is entered regardless of balance item type. Depreciation percent is however not needed for corporate acquisition. The number of columns for entering historical data has been defined under basic values. History columns can be toggled with the hide/unhide button .

Enter the expected purchase price Company A is prepared to pay for Company B on the first row. The other rows of investment table are by default reserved for future capital expenditures of Company B. There are a total of 30 rows available and any of the rows can be hidden if not needed.

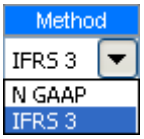
INVESTMENTS (-) / REALIZATIONS (+)

Imputed depreciation		1/2006	12/2006	12/2007	12/2008	12/2009	12/2010
Months per interval	Depr.-%		12	12	12	12	12
1 **Company B**		**-4 000 000**					
Depreciation							
2							
Depreciation (straight line)							
3							
Depreciation (straight line)							
Investments		**0**	**0**	**0**	**0**	**0**	**0**
Realizations		0	0	0	0	0	0
Depreciation		0	0	0	0	0	0
Realization profit (+) / loss (-)		0	0	0	0	0	0
Book value		0	0	0	0	0	0
Group investments		-4 000 000	0	0	0	0	0
Group realizations		0	0	0	0	0	0
Group depreciation		0	0	0	0	0	0
Group realization profits (+) / losses (-)		0	0	0	0	0	0
Group book value		4 000 000	4 000 000	4 000 000	4 000 000	4 000 000	4 000 000
Goodwill calculation	Method	**1/2006**	**12/2006**	**12/2007**	**12/2008**	**12/2009**	**12/2010**
Price	N GAAP	4 000 000	0	0	0	0	0
Share, %		100,00					
Share capital		800 000	0	0	0	0	0
Share issue premium		350 000	0	0	0	0	0
Other restricted equity		0	0	0	0	0	0
Retained earnings		1 230 000	0	0	0	0	0
Profit (loss) for the period		450 000	0	0	0	0	0
Depreciation difference		0	0	0	0	0	0
Goodwill		1 170 000	0	0	0	0	0
Depreciation			-234 000	-234 000	-234 000	-234 000	-234 000
Goodwill		1 170 000	936 000	702 000	468 000	234 000	0
Equity		1 250 000	1 250 000	1 250 000	1 250 000	1 250 000	1 250 000
Interest bearing long-term debt		2 750 000	2 475 000	2 200 000	1 925 000	1 650 000	1 375 000
Amortizations		0	-275 000	-275 000	-275 000	-275 000	-275 000
Financial expenses		0	-176 344	-157 781	-139 219	-120 656	-102 094

The texts of mother company/group-related figures are shown in blue.

10.1.1 Allocation of overvalue according to IFRS 3

Overvalue in acquisitions can be allocated on existing assets and depreciated with added deferred tax liability according to the depreciation of the asset. Make sure IFRS 3 is selected as the method for calculating goodwill:



(IFRS 3 is the default method of handling goodwill. "N GAAP" = "National GAAP" refers to an alternative method with straightforward depreciation of goodwill without allocation.)

A deferred tax liability is added to overvalue:

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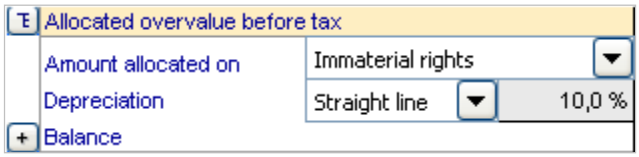
Overvalue before tax liability			16 578
Deferred tax liability			6 447
Overvalue			23 025

The deferred tax liability is by default calculated as:

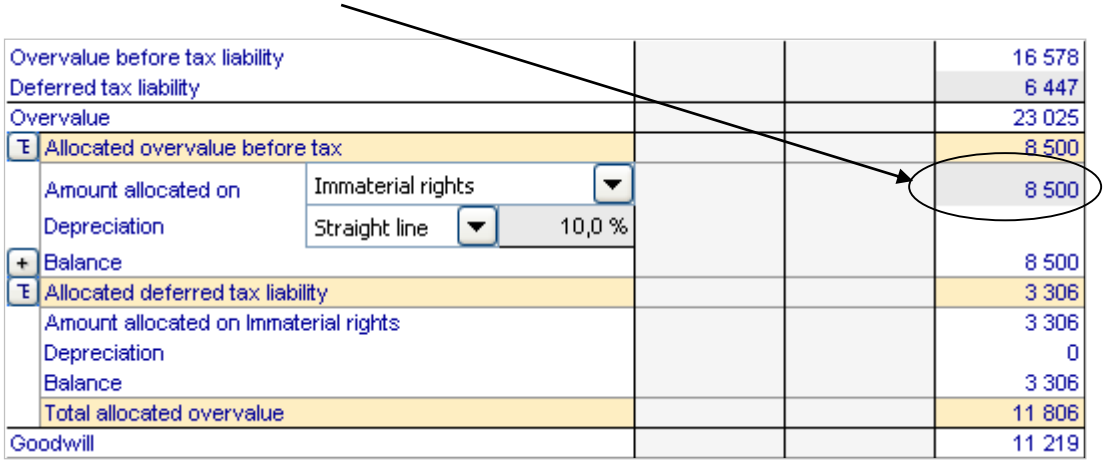
(Overvalue before tax liability / (1 – Tax-%)) * Tax-%

In other words, the tax liability equals Tax-% * Overvalue. Adjust deferred tax liability if necessary. Overvalue can be allocated on the Balance sheet fixed assets of the purchased company:

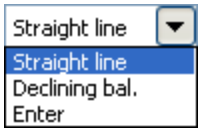
If a depreciation method is defined for the asset in the Balance sheet, Invest for Excel will use the same depreciation method as default:



Enter value to allocate:



Note that the entered value should be part of (or all of) Overvalue before tax liability. An equal share of the deferred tax liability is automatically allocated. Any remaining overvalue is shown as goodwill. Allocated overvalue is depreciated according to selected depreciation method. The available methods are:



Both overvalue and corresponding deferred tax liability is depreciated using the same method, also when depreciations are entered manually (Enter).

⊟	Allocated overvalue before tax			8 500	0	0	0
	Amount allocated on	Immaterial rights		8 500			
	Depreciation	Enter	10,0 %		-425	-850	-850
+	Balance			8 500	8 075	7 225	6 375
⊟	Allocated deferred tax liability			3 306	0	0	0
	Amount allocated on Immaterial rights			3 306	0	0	0
	Depreciation			0	-165	-331	-331
	Balance			3 306	3 140	2 810	2 479
	Total allocated overvalue			11 806	0	0	0

To enter a new allocation, press + . A new allocation and tax liability appears:

⊟	Allocated overvalue before tax			8 500	0	0	0
	Amount allocated on	Immaterial rights		8 500			
	Depreciation	Enter	10,0 %		-425	-850	-850
	Balance			8 500	8 075	7 225	6 375
−	Amount allocated on						
	Depreciation	Straight line	0,0 %				
+	Balance			0	0	0	0
⊟	Allocated deferred tax liability			3 306	0	0	0
	Amount allocated on Immaterial rights			3 306	0	0	0
	Depreciation			0	-165	-331	-331
	Balance			3 306	3 140	2 810	2 479
	Amount allocated on			0	0	0	0
	Depreciation			0	0	0	0
	Balance			0	0	0	0
	Total allocated overvalue			11 806	0	0	0

To remove an allocation, press − . To hide/unhide details, press ⊟ .

A maximum of 12 allocations of overvalue can be specified. Any remaining overvalue after allocations is shown as Goodwill and is not depreciated (according to IFRS 3).

Note! This feature requires the Enterprise edition of Invest for Excel.

10.1.2 Depreciation of goodwill

When "N Gaap" is selected as goodwill handling method, goodwill will be depreciated. By clicking on the depreciation row button a dialog box opens for entering the depreciation time in years.

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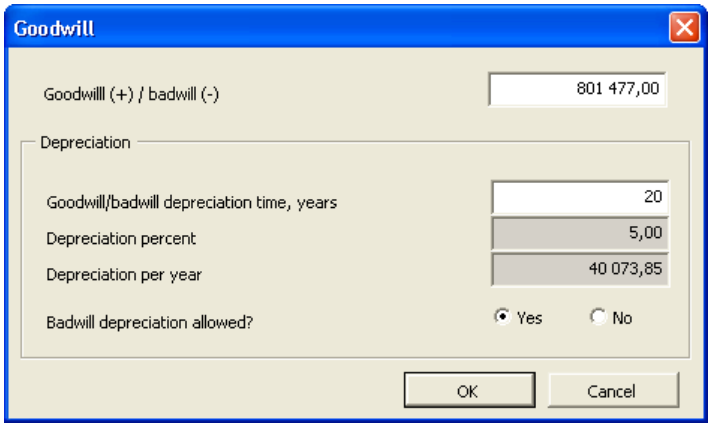
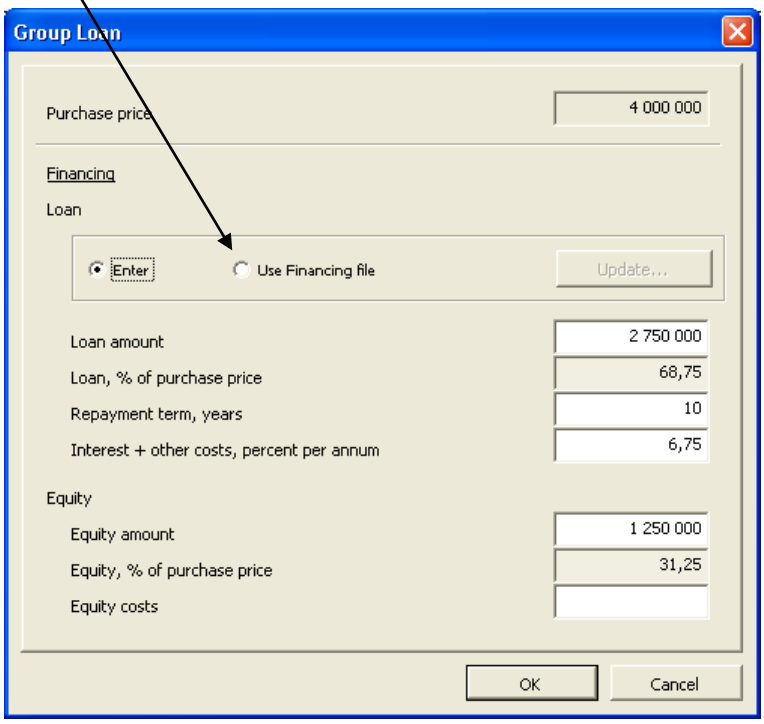


Note that you can determine whether depreciation of negative goodwill (badwill) is allowed.

10.1.3 Financing

By clicking the ... button on the "interest-bearing long-term debt" row, the financing structure for the corporate acquisition can be specified. Enter the loan amount, repayment term and financing costs (annual percentage). Cash flows are calculated for the loan when you press OK. A financing file can also be used for specifying the loan.



10.2 Income statement

The expected income and costs of the future operations of Company B, i.e. the expected INCOME STATEMENT, is entered into the profitability calculation. The extra blue rows at the

bottom of the calculation show the effects on parent company A. Enter the figures also in the working capital table. The opening balance is entered into the balance sheet.

The data preceding the year of the corporate acquisition is entered into the history columns selected under basic values. This information is used for estimating the business trend or continuity.

Chapter 0 gives further information on the Income statement. When calculating the profitability of a corporate acquisition compared to an ordinary investment, the difference will show at the bottom of the table as effect on the result and as indicators on group level.

Group			
Investment object result before taxes	0	-6 250	-11 563
Depreciation	0	-42 100	0
Financial and extraordinary items	0	0	0
Total tax effect	0	0	0
Group result effect (cum. fin. year)	0	-48 350	-11 563
Group Return on net assets (RONA), %		**-0,8 %**	**-1,4 %**
Group Economic Value Added (EVA)		**-85 835**	**-91 920**
Group Discounted Value Added (DCVA)		-78 032	-75 967
Group Cumulative Discounted Value Added		-78 032	-153 999
Group Operating profit		-6 250	-11 563
Group Net operating profit after tax		-4 438	-8 209
Group Net assets, average		813 977	837 102
Group Capital charge on net assets		81 398	83 710

10.3 Cash flow

The blue rows in the calculation will show how a corporate acquisition, possible sales profit/loss and taxes affect the cash flow.

Cash flow from operations	**0**	**0**	**49 503**	**43 731**
Asset investments and realizations	0	-31 250	-32 813	-34 453
Group items				
Acquisitions and realizations	-1 000 000	0	0	0
Group realization profits (+) / losses (-)	0	0	0	0
Tax effects	0	-12 209	0	0

10.4 Balance sheet

The goodwill of the corporate acquisition is shown under assets in the balance sheet offset by adjusted shareholders' equity and liabilities with interest.

ASSETS	**0**	**-6 250**	**31 691**
Group goodwill (acquisition)	801 477	801 477	801 477
GROUP ASSETS	**801 477**	**795 227**	**833 168**
SHAREHOLDERS' EQUITY AND LIABILITIES	**0**	**-6 250**	**31 691**
Check: Equity and liabilities - Assets	0	0	0
Equity correction	-198 523	-198 523	-198 523
Interest bearing long-term debt	1 000 000	1 000 000	1 000 000
GROUP EQUITY AND LIABILITIES	**801 477**	**795 227**	**833 168**
Check: Equity and liabilities - Assets (Group)	0	0	0

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11 Impairment testing and IFRS functionality

11.1 Impairment testing

The Cash flow table and the Impairment test calculation table under the Balance sheet in Invest for Excel include a ”Value in use” row.

Value in use is the present value of future cash flows in continuous use and the realization value of the asset.

Value in use is needed when applying IAS 22, IAS 36 and IAS 38, to perform periodical impairment tests.

A control value is calculated by comparing the value in use to the tested assets book value. The method for calculating the control value differs if a corporate acquisition or an asset is tested.

A detailed Impairment test verification is available from the Home screen or the Result sheet.

11.1.1 Corporate acquisitions

In the case of a corporate acquisition the purchase price and net assets will generate goodwill in the balance sheet of the acquiring company. This goodwill is depreciated in 5 – 20 years. The depreciation affects the result. This obligation to depreciate goodwill is often questioned by companies. Why depreciate an assets value may even increase? According to IAS 22, no depreciation is done on assets without a specific lifetime, but these items must be impairment tested. This test is done by comparing *Value in use* to the company’s assets + goodwill.

Control value = value in use – total assets – goodwill

11.1.2 Fixed assets

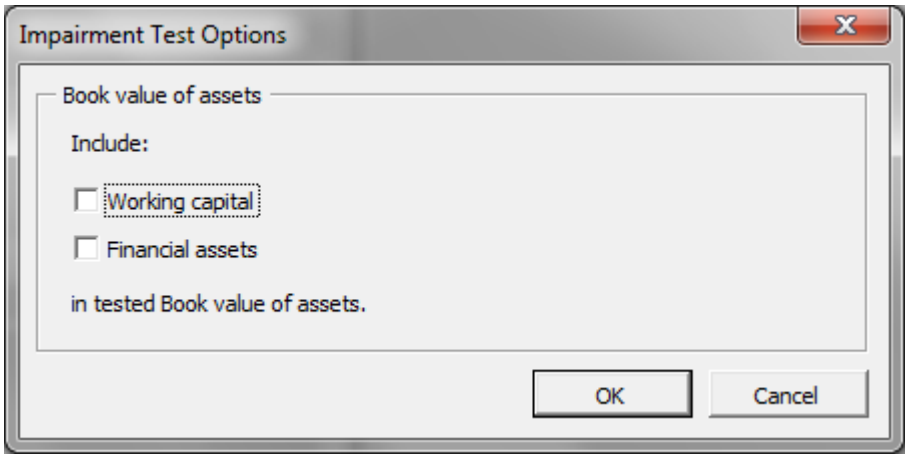
According to IAS 36 a company is required to recognize an impairment loss if the carrying amount of assets exceed their recoverable amount. The recoverable amount of an asset or a cash-generating unit is the higher of its fair value less costs to sell and its value in use. Invest for Excel is used when the recoverable amount is value in use.

Control value = value in use – total assets

When the control value is positive, no impairment loss needs to be recognized.

11.1.3 Impairment test options

Working capital and financial assets can be included in the tested assets (requires that the impairment test calculation file is created with version 3.4 or newer).



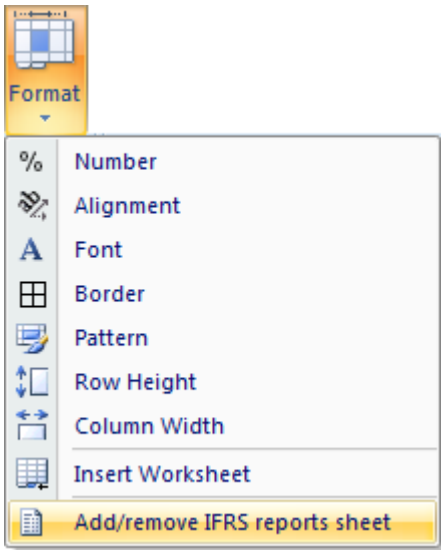
The Impairment test options-dialog box can be opened from the Book value of assets row beneath the Balance sheet and on the Result sheet:

Impairment test
Book value of assets
Value in use
Control value (+ growth capital / - impairment loss)

Impairment test
Book value of assets (A)
Value in use (B)
Control value (B - A)

11.2 IFRS report sheet

An IFRS report sheet can be added to an calculation file Available only in Enterprise edition..



The IFRS report sheet uses the forecast data on the Calculations sheet. Included reports:

- Consolidated income statement
- Consolidated balance sheet
- Consolidated cash flow statement

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11.2.1 Consolidated income sheet

☐ Show key figures

Company acquisition	1000 €		
CONSOLIDATED INCOME STATEMENT	12/2010	12/2011	12/2012
Continuing operations			
Sales	38 453	40 488	42 472
Other income	15	16	16
Materials and services	-33 069	-34 819	-36 526
Employee benefit costs	-2 623	-2 762	-2 897
Depreciation, amortisation and impairment charges	-314	-335	-356
Other expenses	-1 592	-1 676	-1 759
Operating profit	**869**	**911**	**950**
Share of profit of associates and joint ventures	0	0	0
Net financial items	-511	-473	-435
Profit before income tax	**358**	**438**	**516**
Income tax expense	-100	-123	-144
Profit for the period from continuing operations	**258**	**316**	**371**
Discontinued operations			
Profit for the period from discontinued operations	0	0	0
Profit for the period	**258**	**316**	**371**
Attributable to:			
Equity holders of the company	258	316	371
Minority interest	0	0	0

A couple of non-IFRS standard key ratios can be included:

☑ Show key figures

Company acquisition	1000 €		
CONSOLIDATED INCOME STATEMENT	12/2010	12/2011	12/2012
Continuing operations			
Sales	38 453	40 488	42 472
Other income	15	16	16
Materials and services	-33 069	-34 819	-36 526
Employee benefit costs	-2 623	-2 762	-2 897
Depreciation, amortisation and impairment charges	-314	-335	-356
Other expenses	-1 592	-1 676	-1 759
Operating profit	**869**	**911**	**950**
Operating profit, %	*2,3 %*	*2,2 %*	*2,2 %*
Share of profit of associates and joint ventures	0	0	0
Net financial items	-511	-473	-435
Profit before income tax	**358**	**438**	**516**
Profit before income tax, %	*0,9 %*	*1,1 %*	*1,2 %*
Income tax expense	-100	-123	-144
Profit for the period from continuing operations	**258**	**316**	**371**
Profit for the period from continuing operations, %	*0,7 %*	*0,8 %*	*0,9 %*
Discontinued operations			
Profit for the period from discontinued operations	0	0	0
Profit for the period	**258**	**316**	**371**
Profit for the period, %	*0,7 %*	*0,8 %*	*0,9 %*
Attributable to:			
Equity holders of the company	258	316	371
Minority interest	0	0	0
Return on net assets (RONA), %	*8,3 %*	*8,9 %*	*9,6 %*
Economic Value Added (EVA)	*-439*	*-384*	*-325*

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11.2.2 Consolidated balance sheet

Company acquisition	1000 €		
CONSOLIDATED BALANCE SHEET	12/2010	12/2011	12/2012
ASSETS			
Non-current assets			
Intangible assets	6 066	5 785	5 503
Property, plant and equipment	3 972	3 936	3 883
Investments in associates	0	0	0
Other long-term investments	14	14	14
Deferred tax assets	0	0	0
Long-term interest bearing receivables	0	0	0
Total non-current assets	**10 052**	**9 735**	**9 400**
Current assets			
Inventories	3 107	3 271	3 432
Trade and other receivables	1 056	1 095	1 134
Cash and cash equivalents	-105	-79	11
Total current assets	**4 057**	**4 287**	**4 577**
Total assets	**14 110**	**14 023**	**13 977**
EQUITY			
Capital and reserves attributable the Company's equity holders			
Share capital	0	0	0
Other equity	126	441	813
Total	**126**	**441**	**813**
Minority interest	0	0	0
Total equity	**126**	**441**	**813**
LIABILITIES			
Non-current liabilities			
Interest-bearing liabilities	9 159	8 559	7 959
Deferred tax liabilities	652	566	479
Provisions	183	183	183
Other liabilities	64	64	64
Total non-current liabilities	**10 058**	**9 372**	**8 685**
Current liabilities			
Interest-bearing liabilities	708	708	708
Current tax liability	146	282	408
Trade and other payables	3 071	3 219	3 363
Total current liabilities	**3 925**	**4 209**	**4 479**
Total liabilities	**13 984**	**13 581**	**13 165**
Total equity and liabilities	**14 110**	**14 023**	**13 977**

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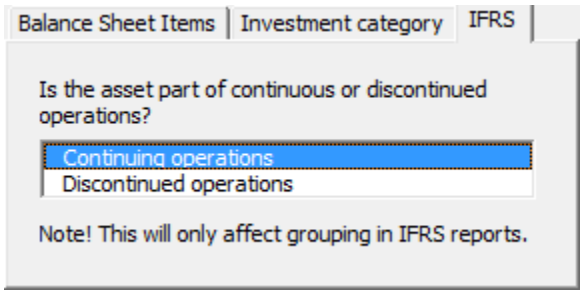
11.2.3 Consolidated cash flow statement

Company acquisition	1000 €		
CONSOLIDATED CASH FLOW STATEMENT	12/2010	12/2011	12/2012
Cash flow from operating activities			
Operating profit before depreciations continuing operations	**1 183**	**1 246**	**1 307**
Non-cash flow items and divesting activities	0	0	0
Net financial items	-511	-473	-435
Dividends received	0	0	0
Taxes	-100	-123	-144
Funds from operations continuing operations	**572**	**650**	**728**
Change in working capital	-134	-56	-55
Net cash from operating activities continuing operations	**437**	**594**	**673**
Net cash from operating activities discontinued operations	0	0	0
Total net cash from operating activities	**437**	**594**	**673**
Cash flow from investing activities			
Capital expenditures	-100	-104	-108
Acquisition of shares	-9 000	0	0
Proceeds from sales of fixed assets	0	0	0
Proceeds from sales of shares	0	0	0
Change in other investments	0	0	0
Net cash used in investing activities continuing operations	**-9 100**	**-104**	**-108**
Net cash used in investing activities discontinued operations	0	0	0
Total net cash used in investing activities	**-9 100**	**-104**	**-108**
Cash flow before financing activities	**-8 663**	**490**	**565**
Cash flow from financing activities			
Net change in loans	8 400	-600	-600
Dividends paid to the Company´s equity holders	0	0	0
Other financial items	0	0	0
Net cash used in financing activities continuing operations	**8 400**	**-600**	**-600**
Net cash used in financing activities discontinued operations	0	0	0
Total net cash used in financing activities	**8 400**	**-600**	**-600**
Total net increase (+)/decrease (-) in cash and marketable securities	**-263**	**-110**	**-35**
Total net increase (+)/decrease (-) in cash, continuing operations	**-263**	**-110**	**-35**

Calculation sheet items can be included in the IFRS reports either as "Continuing operations" or "Discontinued operations", if that's appropriate. As default all items are included in continuing operations.

Investments can be specified as part of continuing operations and discontinued operations in the Depreciation method dialog box:


Balance Sheet Items
Investment category
IFRS
Is the asset part of continuous or discontinued operations?
Continuing operations
Discontinued operations
Note! This will only affect grouping in IFRS reports.

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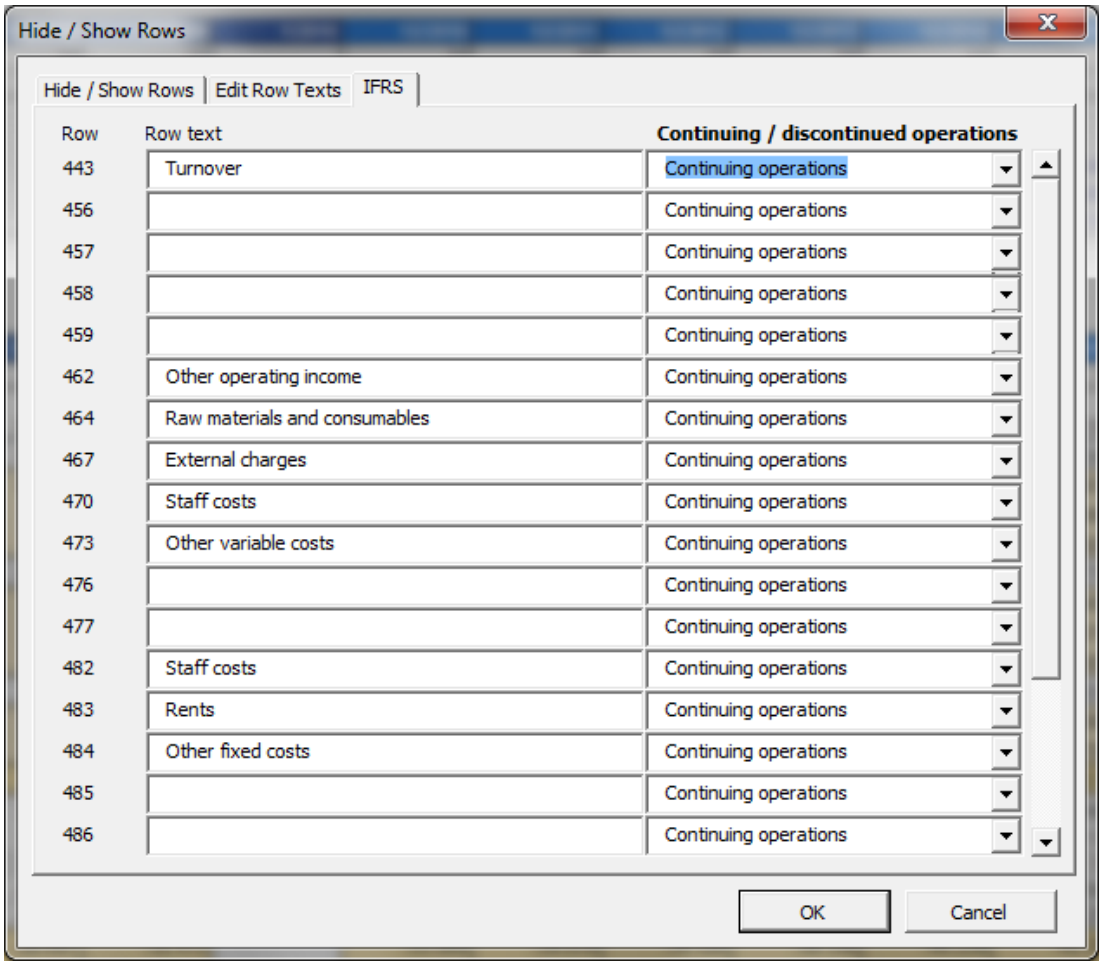
Income statement rows can be divided in continuing and discontinued operations in the IFRS page of the Hide / Show Rows dialog box.



Note! This feature requires the Enterprise edition of Invest for Excel.

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12 Hints

12.1 Creating links to Excel workbooks.

When you are working on an Invest for Excel calculation and you want to create a link to an Excel workbook saved earlier:

1) Select first File – Open and open the file you want to refer to.
2) Return to your Invest for Excel calculation by choosing the file name in the Window menu.
3) In Invest for Excel, activate the cell to which you want to place the reference, and enter the equals (=) sign in the cell.

4) Return to the Excel calculation, use the mouse to activate the cell where the source file is, and press the Enter key.

Now you have created a link between the workbooks. It is advisable to save both workbooks!

Later on, when you reopen the Calculation file, Invest for Excel will ask, whether you want to update the existing link to the Excel-calculation. If you choose Yes, Invest for Excel will update the Calculation file with all changes made in the Excel-workbook.

You can, of course, also make links to extra sheets within the Invest for Excel Workbook (*Insert - Worksheet*).

12.2 Using templates

If you use regularly the same rate of return requirement or other such information, it makes sense to create a file called template. You can save the template in any folder you choose (see 2.1.3 *Template Files*). The Company can limit and direct the use of calculations related to certain investments by setting default values. When starting a new investment calculation, open this template file and *only enter the missing values* into it. Separate template files can be made for various types of recurring investments. When similar types of investments are made repeatedly, you don't have to do everything again from the start; instead, changing a few figures will suffice.

12.3 Including positive tax effects.

(See the bottom left corner of the text Basic Values screen, and the chapter Income Tax Rate above. Example:

Investment X results in a loss of -100,000 USD in the first interval.
The result of the company's remaining business shows a profit of 1,000,000 USD. The corporate tax rate is 29%.

1) Without investing in X

Our profit from other activities	1 000 000
Tax (29%)	- 290 000

2) We invest in object X

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Our profit from other activities	1 000 000
Result of investment	- 100 000
Total profit	900 000
Tax (29%)	-261 000

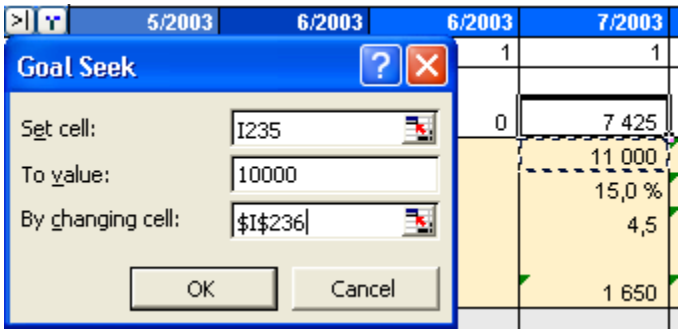
If we choose Include positive tax effects, the cash flow will increase by 29,000 USD during the first interval (i.e. 290,000 -261,000 = 29,000).

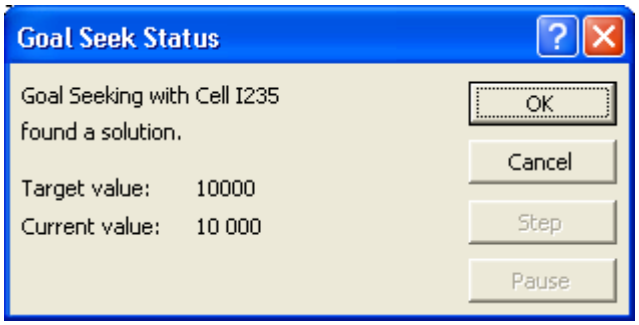
12.4 Excel's Goal Seek function

Example:

How many products XY have to be produced, before earnings reach a certain level.

1) First, choose **Excel menus** from Invest for Excel's menu.
2) Move the cursor to the cell, the value of which you want to set at a specific level.
3) Choose from Excel's Data – What if analysis menu - **Goal Seek** and enter the goal value (**To value**) in the dialog-box.
4) Specify the variable you want to analyse. To do that, activate the first cell containing a value of an input row in the calculation table.
5) Choose **OK** in the **Goal Seek** window.





The result will be shown in the **Goal Seek Status** window and in the calculation.

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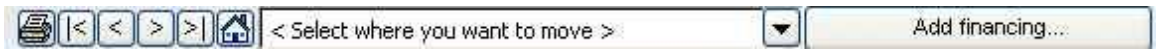
13 The Financing module (Enterprise edition)

13.1 General

The Financing file (*InvFin*) consists initially of the following sheets:

- **Project**, general information and synchronization between investment calculation file (*InvFile*) and the financing file.
- **Currency**, currency rates for synchronization between investment calculation and project financing.
- **InvSpec**, will include cash flows from calculation file once you have updated the numbers with the exclamation mark button in Project sheet.
- **01Param**, here define the parameters of loan # 1. This is the main input sheet.
- **01Spec**, in this sheet you will see all details of loan1 payment schedule
- **01View**, is a report of the loan payment schedule and other financing costs.
- **TotalSpec**, shows all specified loans payment schedules consolidated in detail.
- **TotalView**, is a report showing all loan payment schedules aggregated.



On the top, there is a bar with buttons and a drill-down menu.
The functionality explained (from left to right):

- print function for printout of current sheet
- moves to the leftmost sheet
- moves one sheet left
- moves one sheet right
- moves to the rightmost sheet
- moves to start-screen
- the drill-down menu lets you select which function you move to
- the Add financing button adds more sheets for more loans (e.g. 02Param, 02Spec & 02View)

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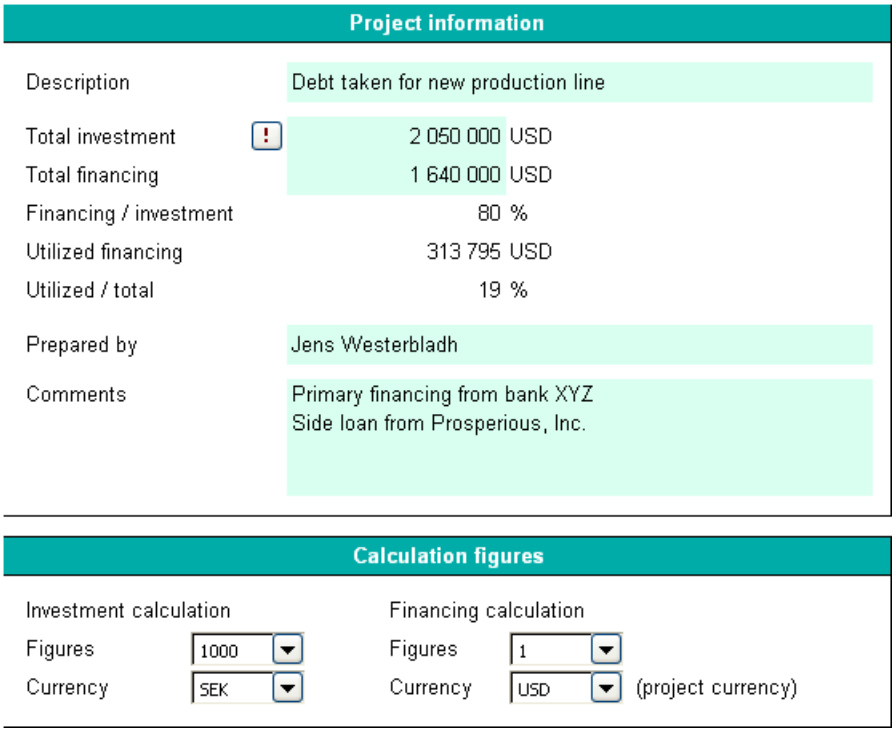
13.2 Project sheet



Description — Describe your project financing plan, the purpose of this financing or who is the financier.

Total investment — The sum of investments (capital expenditures) from your calculation file. Is updated by pressing the exclamation mark on the left *.

Total financing — Enter how much debt you are planning to take for this project.

Financing/ investment — The percentage ratio of Total financing vs. Total investment.

Utilized financing — Once you have entered the debt parameters and the withdrawals, the sum of debt taken will show here.

Utilized / total — Shows the ratio between the sum of entered withdrawals vs. planned total financing.

Calculation figures — In order to synchronize the numbers for updating from calculation file you need to select the figures and currency of both investment calculation file and financing file. In the example above, the investment calculation was done in 1000 SEK, but the financing plan will be done in 1 USD. When exchanging data both ways, the numbers are automatically converted.

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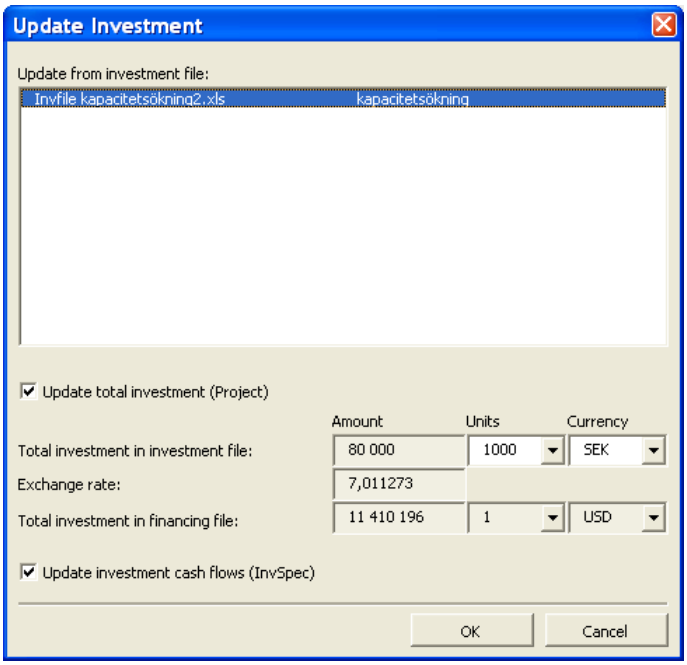
*

Pressing the exclamation mark will open this dialog box:

Open *Investment calculation files* will be listed. Select the one whose cash flow you want to import.

Notice the amounts, units, currency and exchange rate. Press OK, to update, Cancel to cancel.



13.3 Currency sheet

This sheet is only for currency exchange rates used when updating numbers between *investment calculation file* and *financing file*. You only need to enter a currency exchange rate when you use it. There is no need to update other exchange rates.

	Currencies		
	Currency	Rate	
Reference	EUR	1,000000	EUR/EUR
	USD	1,206300	USD/EUR
	JPY	135,070000	JPY/EUR
	AUD	1,598500	AUD/EUR
	NZD	1,774500	NZD/EUR
	CYP	0,573800	CYP/EUR
	ZAR	8,052000	ZAR/EUR
	PLN	4,120200	PLN/EUR
	CZK	30,203000	CZK/EUR
	RON	3,559200	RON/EUR
	BGN	1,955700	BGN/EUR

Currency prefixes		
Figures	Prefix	Example
1		EUR
1 000	T	TEUR
1 000 000	M	MEUR
1 000 000 000	B	BEUR

13.4 InvSpec sheet

The cash flows from your investment calculation file are brought to this sheet.

Although your investment calculation might have been e.g. on annual basis, the financing file is always on monthly basis:

Figures: USD		Investment					
(All transactions at end of month)		Cash flow from operations		Investments and realizations		Investment net cash flow	
		Per period	Cumulative	Per period	Cumulative	Per period	Cumulative
Month	Totals:	7 278 812,85	7 278 812,85	-2 895 120,00	-2 895 120,00	4 383 692,85	4 383 692,85
	1/2006			-603 150,00	-603 150,00	-603 150,00	-603 150,00
1	2/2006			-603 150,00	-1 206 300,00	-603 150,00	-1 206 300,00
2	3/2006			-1 688 820,00	-2 895 120,00	-1 688 820,00	-2 895 120,00
3	4/2006				-2 895 120,00		-2 895 120,00
4	5/2006				-2 895 120,00		-2 895 120,00
5	6/2006				-2 895 120,00		-2 895 120,00
6	7/2006				-2 895 120,00		-2 895 120,00
7	8/2006				-2 895 120,00		-2 895 120,00
8	9/2006				-2 895 120,00		-2 895 120,00
9	10/2006				-2 895 120,00		-2 895 120,00
10	11/2006				-2 895 120,00		-2 895 120,00
11	12/2006	224 204,26	224 204,26		-2 895 120,00	224 204,26	-2 670 915,74
12	1/2007		224 204,26		-2 895 120,00		-2 670 915,74
13	2/2007		224 204,26		-2 895 120,00		-2 670 915,74
14	3/2007		224 204,26		-2 895 120,00		-2 670 915,74
15	4/2007		224 204,26		-2 895 120,00		-2 670 915,74
16	5/2007		224 204,26		-2 895 120,00		-2 670 915,74
17	6/2007		224 204,26		-2 895 120,00		-2 670 915,74
18	7/2007		224 204,26		-2 895 120,00		-2 670 915,74
19	8/2007		224 204,26		-2 895 120,00		-2 670 915,74
20	9/2007		224 204,26		-2 895 120,00		-2 670 915,74
21	10/2007		224 204,26		-2 895 120,00		-2 670 915,74
22	11/2007		224 204,26		-2 895 120,00		-2 670 915,74
23	12/2007	573 253,19	797 457,45		-2 895 120,00	573 253,19	-2 097 662,55

Three cash flows are brought:

- Cash flow from operations
- Investments and realizations
- Free cash flow (net cash flow)

All three are also shown as cumulative. The reason for importing cash flows from investment calculation is to have a better idea of how much debt financing is needed, when withdrawals need to made and how soon can the debt be repaid? The best indicator for the need of financing

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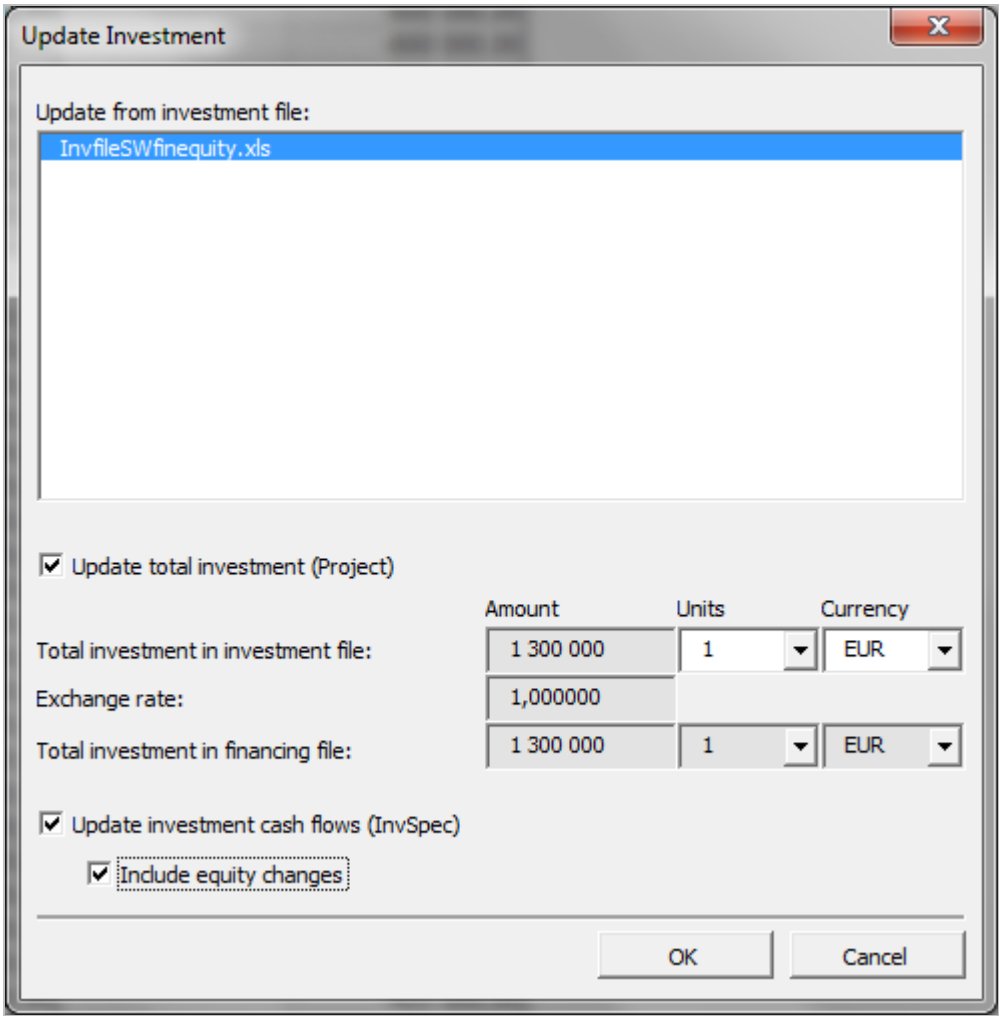
is cumulative investment net cash flow (free cash flow). Think of it as the debt balance needed. But remember that you need more than that in order to pay financing costs (e.g. interest).

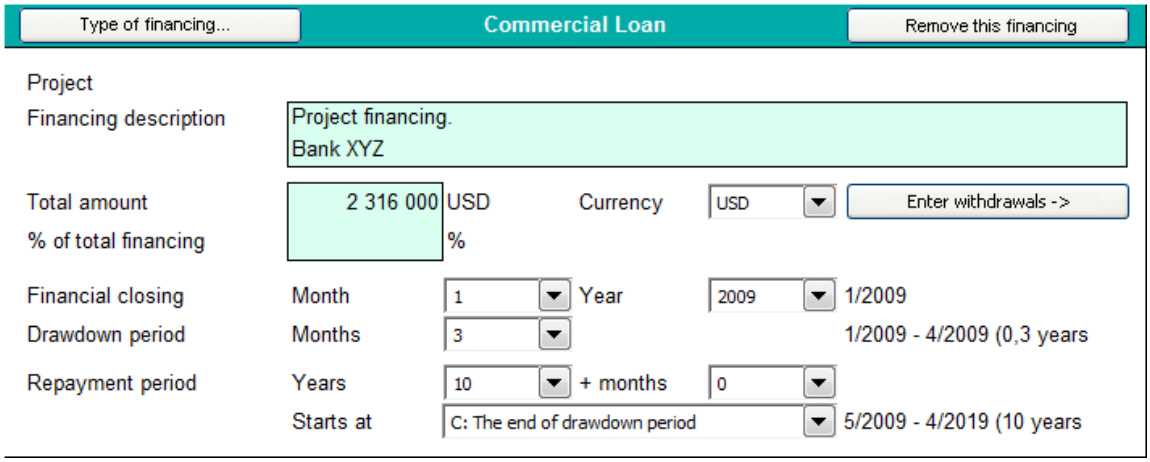
13.4.1 Include equity changes

Equity changes can be included when updating financing file cash flows from the calculation file. This way it's easy to see the financing need after equity for each period.



13.5 01Param sheet

Enter parameters for debt financing.



The picture above shows the upper part of *01Param* sheet.

Type of financing…: You may choose from 2-types: *Commercial loan* and *ECA*.

ECA is short for Export Credit Agency. ***Export Credit Agencies***, commonly known as ***ECAs***, are public agencies and entities that provide government-backed loans, guarantees and insurance to corporations from their home country that seek to do business overseas in developing countries and emerging markets. Most industrialized nations have at least one ECA. Selecting ECA here, means that certain parameters for the loan are given, it will a typical ECA standard debt under guidelines set by the OECD.

IN ALL OTHER CASES (not ECA), USE *COMMERCIAL LOAN* AS TYPE OF FINANCING.

Please use following working order, while entering parameters for debt:

Financing description: Please feel free to describe this debt with own words.

Currency: Select the currency of the loan.

Total amount: Enter the size of the loan to be taken or *% of total financing* (if you entered the debt amount on *Project* -sheet).

Financial closing: Date when the loan is granted and possible startup costs are paid. Select month and year.

Drawdown period: Loan withdrawal period. E.g. the length of the construction period of a project. **Enter the length of the drawdown period.** The drawdown period is defined as the time from the first drawdown to the starting point of credit (i.e., the beginning of the repayment period which usually falls six months before the first repayment of principal). If the transaction involves only a single loan withdrawal, the drawdown period is usually zero. In all other cases, enter the anticipated number of months between the first draw and the starting point of credit.

Repayment period: The term for repayment of loan in years + months. E.g. 10 years, 0 months.

Starts at: Starting Point of Credit. Three options: A) Financial closing, B) First draw and C) The end of drawdown period (default). When option A is selected the repayment period begins immediately from financial closing. When option B is selected the repayment period starts from first withdrawal. When option C is selected the repayment period starts at the end of the Drawdown period.

Now, press the **Enter withdrawals** button (Enter loan withdrawals). The 01Spec sheet is activated and you have the following view:

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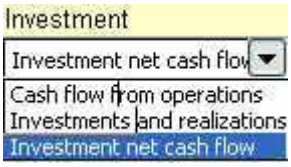
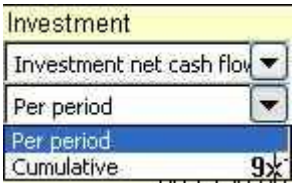
Figures:	USD	Investment	Total amount:	2 316 096
(All transactions at end of month)		Investment net cash flow	Drawdown	
		Per period	USD	% of total
Month	Totals:	4 383 692,85	2 316 015,95	100,00
0	1/2006	-603 150,00	700 000,00	30,22
1	2/2006	-603 150,00	700 000,00	30,22
2	3/2006	-1 688 820,00	916 015,95	39,55
3	4/2006	0,00		
4	5/2006	0,00		
5	6/2006	0,00		
6	7/2006	0,00		

In the 2nd column the color shows different phases: light turquoise is Financial closing, turquoise represents Drawdown period and dark turquoise represents repayment period.

In the yellow column you have cash flows imported from your investment calculation. This helps you to synchronize the need for financing with the financing.



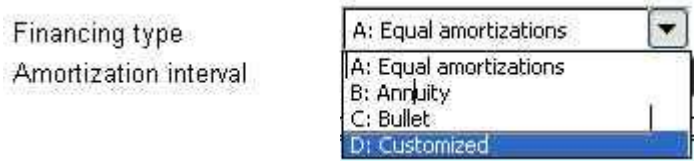


You may select from Cash flow from operations, investments and realizations and Investment net cash flow (Free cash flow). You may also select whether you prefer cash flow per period or cumulative.

In the 4th and 5th columns, here labeled Drawdown you enter the debt Withdrawals. For each withdrawal, you may enter either as value or percentage. See example above

Next, please return to *01Param* sheet.

Select type of loan:



- **Equal amortizations**: each amortization is of same size, payment and interest varies. Each payment will be smaller than previous.
- **Annuity**: each payment is of same size, amortization and interest varies.
- **Bullet**: only interest is paid. One amortization of the whole loan at the end of the loan term.
- **Customized**: totally flexible amortization. You enter the amortizations by pressing the "*Enter principal payments"* –button:

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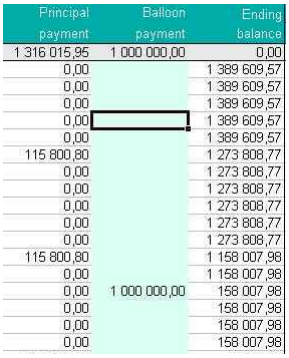
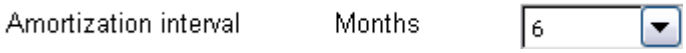
Balloon payment is one extra amortization in order to accelerate repayment. Select only when applicable. Can be used with all loan types. Select Balloon payment and press “Enter balloon ->” button. You may then enter the balloon payment in the period of your choice.



Principal payment	Balloon payment	Ending balance
1 316 015,95	1 000 000,00	0,00
0,00		1 389 609,57
0,00		1 389 609,57
0,00		1 389 609,57
0,00		1 389 609,57
0,00		1 389 609,57
115 800,80		1 273 808,77
0,00		1 273 808,77
0,00		1 273 808,77
0,00		1 273 808,77
0,00		1 273 808,77
0,00		1 273 808,77
115 800,80		1 158 007,98
0,00		1 158 007,98
0,00	1 000 000,00	158 007,98
0,00		158 007,98
0,00		158 007,98
0,00		158 007,98

Select amortization interval of loan:



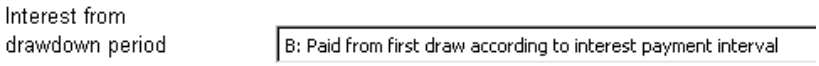
You may select between 1,2,3,4,6,12 months interval or “Enter”.

If you select “Enter” you may input customized irregular amortizations by pressing the “Enter principal payments” –button:

Next section is about interest rates

First field is for information only:

Next field is about how interest will be handled during the drawdown period:



The alternative methods and their explanations:

A. Paid monthly from financing
   - interest calculated on loan amount and paid monthly
B. Paid from first draw according to interest payment interval
   - interest paid according to selected payment interval, starting from first loan withdrawal
C. Paid at first principal payment after drawdown period
   - the first interest payment paid at the first amortization
D. Capitalized on financing and paid according to repayment plan
   - during drawdown period interests are not paid, accrued interests are put on top of loan, so the loan amount will be bigger.

Enter interest rate

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In the example to the right the benchmark rate (Euribor 6 m.) is entered + a margin.

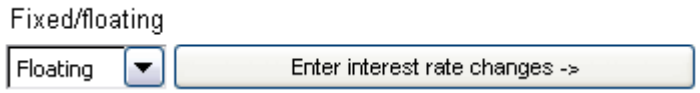
It is not necessary to break the interest in two parts.

Yield (p.a.) is effective annual rate.

Interest		
Interest rate (p.a.)	2,91800	%
Interest margin (p.a.)	0,50000	%
Total rate (p.a.)	3,41800	%
Yield (p.a.)	3,44721	%

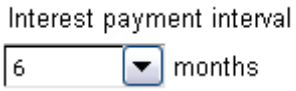
When interest rate is floating, you may enter forecasted interest rates for future periods by pressing the “Enter interest rate changes ->” –button.

You can always stick to the initial interest rate if you don’t think you can predict the future.



Select interest payment interval

Typically interest payments follow the amortization schedule, but not always. You may select 1, 2, 3, 4, 6 or 12 months interest payment intervals.



Interest is calculated either based on the assumption of 360 days per year or 365 days per year. The simplified 360 days is more common.

Entering other costs related to the debt financing

In the left column “Fees” you may name the fees.

In the 2nd column you enter either a percent or a monetary value.

Please do not use %-format.

Then select from the dropdown menu, how the fee is calculated.

Fees	% / USD	Type	Payment interval	
Loan arrangement fee	0,50000	A: Upfront % of total financing at financial closing		>
Guarantee fee	0,30000	F: % of balance in advance, repayment period	3	>
Billing charge	10,00	I: Fixed fee in arrears	6	>
		(Not in use)		>
		(Not in use)		>
		(Not in use)		>
		(Not in use)		>
		(Not in use)		>
		(Not in use)		>
		(Not in use)		>

All-in rate (p.a.)	3,85499 %	Total finance cost	476 433 USD

You may select from 15 options.

(Not in use)

- use this option when you don’t want to calculate a fee

A: Upfront % of total financing at financial closing

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- the fee is calculated as a percentage of total debt, paid immediately at financial closing

B: Upfront amount at financial closing

- the fee is entered (not calculated), payable immediately at financial closing

C: Flat % on each disbursement

- the fee is a percentage of each withdrawal, paid at the time of corresponding withdrawal

D: % of undisbursed balance on each disbursement

- the percentual fee is calculated on the unused loan reservation, paid each month there is a withdrawal.

E: % of paid interest

- a percentage fee calculated on paid interest, paid each time interest is paid

F: % of balance in advance, repayment period

- a percentage fee calculated on loan balance, paid according to amortization schedule, but upfront.

G: % of balance in arrears, repayment period

- a percentage fee calculated on loan balance, paid according to amortization schedule.

H: Fixed fee in advance

- the fee is entered, paid according to amortization schedule, but upfront.

I: Fixed fee in arrears

- the fee is entered, paid according to amortization schedule.

J: % of disbursed balance in advance

- otherwise like option “F” but payments start already at financial closing, continuing according repayment interval (upfront).

K: % of disbursed balance in arrears

- otherwise like option “G” but payment schedule starts already at financial closing, continuing according repayment interval.

L: % of undisbursed balance in advance, drawdown period

- a percentage fee calculated on unused loan reservation, paid upfront at selected payment interval but only during drawdown period.

M: % of undisbursed balance in arrears, drawdown period

- a percentage fee calculated on unused loan reservation, paid at selected payment interval but only during drawdown period.

N: Entered

- when you select this option, press the arrow on the right and you get to enter fees manually.

13.6 01Spec sheet

This sheet is a detailed report of one specified loan.

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Project financing. Loan from Bank XYZ.			Interest (fixed)				Fees					
Capitalized interest	Principal payment	Ending balance	Euribor 6 months Rate	Calculated	Accrued	Paid	Loan arrangement fee Calculated	Paid	Guarantee fee Calculated	Paid	Billing charge Calculated	Paid
0,00	2 316 015,95	0,00		428 175,77	428 175,77	428 175,77	211 022,67	134 674,67	36 477,25	36 477,25	200,00	200,00
		700 000,00	3,41800				0,00	134 674,67	0,00	0,00		
0,00	0,00	1 400 000,00	3,41800	1 993,83	1 993,83	0,00	134 674,67	0,00	0,00	0,00	0,00	0,00
0,00	0,00	2 316 015,95	3,41800	3 987,67	5 981,50	0,00	76 341,33	0,00	0,00	0,00	0,00	0,00
0,00	0,00	2 316 015,95	3,41800	6 596,79	12 578,29	0,00	6,67	0,00	1 737,01	1 737,01	0,00	0,00
0,00	0,00	2 316 015,95	3,41800	6 596,79	19 175,07	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	0,00	2 316 015,95	3,41800	6 596,79	25 771,86	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	0,00	2 316 015,95	3,41800	6 596,79	32 368,64	0,00	0,00	0,00	1 737,01	1 737,01	0,00	0,00
0,00	0,00	2 316 015,95	3,41800	6 596,79	38 965,43	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	0,00	2 316 015,95	3,41800	6 596,79	45 562,21	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	115 800,80	2 200 215,15	3,41800	6 596,79	52 159,00	52 159,00	0,00	0,00	1 650,16	1 650,16	10,00	10,00
0,00	0,00	2 200 215,15	3,41800	6 266,95	58 425,94	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	0,00	2 200 215,15	3,41800	6 266,95	64 692,89	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	0,00	2 200 215,15	3,41800	6 266,95	70 959,84	0,00	0,00	0,00	1 650,16	1 650,16	0,00	0,00
0,00	0,00	2 200 215,15	3,41800	6 266,95	77 226,78	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	0,00	2 200 215,15	3,41800	6 266,95	83 493,73	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	115 800,80	2 084 414,36	3,41800	6 266,95	89 760,67	37 601,68	0,00	0,00	1 563,31	1 563,31	10,00	10,00
0,00	0,00	2 084 414,36	3,41800	5 937,11	95 697,78	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	0,00	2 084 414,36	3,41800	5 937,11	101 634,89	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	0,00	2 084 414,36	3,41800	5 937,11	107 572,00	0,00	0,00	0,00	1 563,31	1 563,31	0,00	0,00
0,00	0,00	2 084 414,36	3,41800	5 937,11	113 509,10	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	0,00	2 084 414,36	3,41800	5 937,11	119 446,21	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	115 800,80	1 968 613,56	3,41800	5 937,11	125 383,32	35 622,64	0,00	0,00	1 476,46	1 476,46	10,00	10,00
0,00	0,00	1 968 613,56	3,41800	5 607,27	130 990,58	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	0,00	1 968 613,56	3,41800	5 607,27	136 597,85	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	0,00	1 968 613,56	3,41800	5 607,27	142 205,12	0,00	0,00	0,00	1 476,46	1 476,46	0,00	0,00

Columns from left to right (see picture above)

1. **Capitalized interest** If option is chosen: Interest from drawdown period is D: Capitalized on financing and paid according to repayment plan, then the capitalized interests will show here.
2. **Principal payment** Amortization of loan.
3. **Ending balance** Loan amount after amortization
4. **Interest Rate** The interest rate applied for that month
5. **Interest Calculated** The imputed interest for that month
6. **Interest Accrued** Cumulative unpaid interest
7. **Interest Paid** Interest payments, according to interest payment schedule
8. **Fees Calculated** The 1st fee specified in 01Param sheet is calculated here
9. **Fees Paid** The payments of the 1st fee specified in 01Param sheet
10. **Fees Calculated** The 2nd fee specified in 01Param sheet….

	IRR:	5,06378 %
Fees	Total cash flow	
Total	Cash flow	Cumulative
171 351,92	-599 527,69	-599 527,69
134 674,67	565 325,33	565 325,33
0,00	700 000,00	1 265 325,33
0,00	916 015,95	2 181 341,28
1 737,01	-1 737,01	2 179 604,27
0,00	0,00	2 179 604,27
0,00	0,00	2 179 604,27
1 737,01	-1 737,01	2 177 867,26
0,00	0,00	2 177 867,26

IRR: The effective cost of finance including all fees and interests, calculated with Internal Rate of Return method.

Fees Total: Sum of the fees paid per month according to specification on 01Param sheet.

Cash flow: Total monthly cash flow of this debt, including loan withdrawals, loan repayments, interest payments and all fees.

Cumulative: Total cash flow of this debt cumulated.

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13.7 View sheet

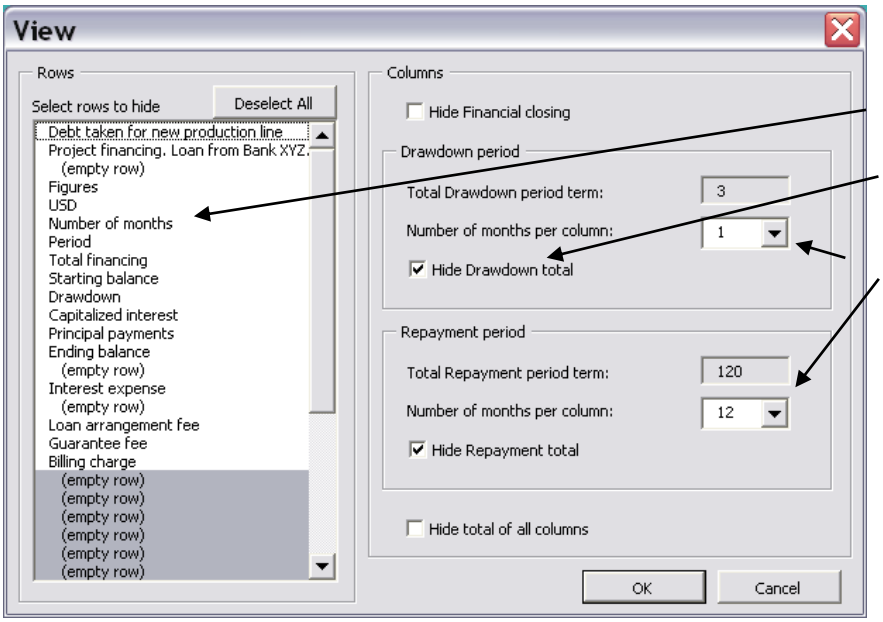
A report view of current debt. Gives a good overview. You may modify line and period settings by pressing button *.

Debt taken for new production line
Project financing. Loan from Bank XYZ.

Figures USD		1/2006	2/2006 - 2/2006	3/2006 - 3/2006	4/2006 - 4/2006	5/2006 - 4/2007	5/2007 - 4/2008	5/2008 - 4/2009
Number of months			1	1	1	12	12	12
Period		Fin. closing	Drawdown period (3 months)			Repayment period (10 years)		
Total financing		2 316 096						
Starting balance			700 000	1 400 000	2 316 016	2 316 016	2 084 414	1 852 813
Drawdown	a)	700 000	700 000	916 016				
Capitalized interest								
Principal payments	b)					231 602	231 602	231 602
Ending balance		700 000	1 400 000	2 316 016	2 316 016	2 084 414	1 852 813	1 621 211
Interest expense	c)					89 761	69 266	61 350
Loan arrangement fee		134 675						
Guarantee fee					1 737	6 601	5 906	5 211
Billing charge						20	20	20
Total fees	d)	134 675			1 737	6 621	5 926	5 231
Total debt service	(b+c+d)	134 675			1 737	327 983	306 794	298 183
Total cash flow	(a-b-c-d)	565 325	700 000	916 016	-1 737	-327 983	-306 794	-298 183
Cumulative cash flow		565 325	1 265 325	2 181 341	2 179 604	1 851 621	1 544 828	1 246 645

All-in rate (p.a.)	5,064 %
Total finance cost (Total interest and fees paid)	599 528

All-in rate (p.a.) is the total cost of financing, shown as an annual interest.
Total finance cost is the total costs paid for this debt.



* Clicking on dialog box button gives you the opportunity to
1) select rows to be hidden, to
2) select columns to be hidden and
3) select column intervals separately for drawdown period and repayment period.

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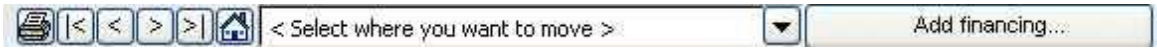
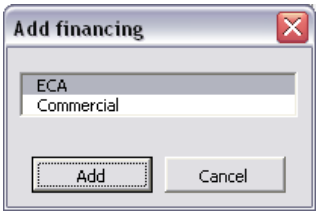
13.8 Handling of multiple loans



Press Add financing… -button to include several loans to the financing package

Select type of Loan:



Select ECA only for Export Credit Agency types of loans, select "Commercial" for all other loans!

Three new sheets are generated:
e.g. 02Param, 02Spec and 02View.
The same rules apply for these, as for the first loan already described.

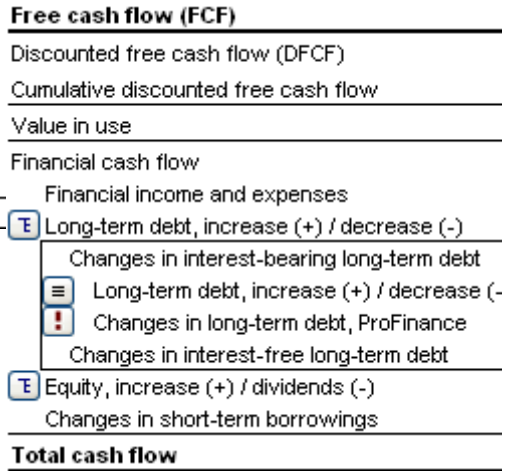
Please note that you also have sheets *TotalSpec* and *TotalView.* These sheets show all specified loans summed up together as consolidated reports.

Please save your Financing file.

13.9 Updating your Calculation file with financing

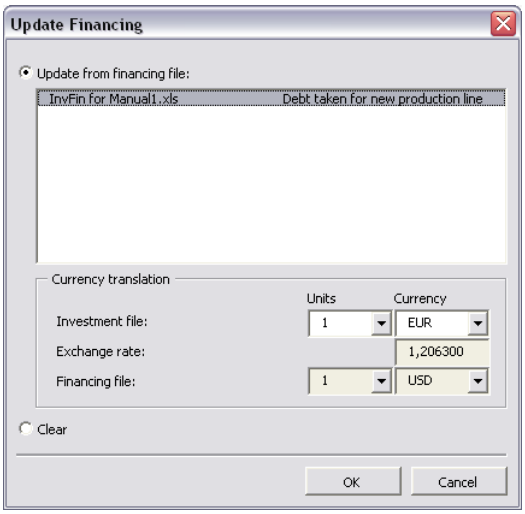
Now you may return to your Calculation file for importing of financing items.
In the Income statement and the Cash flow statement you will find buttons with exclamation marks for importing financing:

EBIT; Operating income
(cumulative financial year)
% (cumulative financial year)
Financing income and expenses
Financing income and expenses
Financing income and expenses ProFinance
EBT; Income after financing items


Free cash flow (FCF)
Discounted free cash flow (DFCF)
Cumulative discounted free cash flow
Value in use
Financial cash flow
Financial income and expenses
Long-term debt, increase (+) / decrease (-)
Changes in interest-bearing long-term debt
Long-term debt, increase (+) / decrease (-
Changes in long-term debt, ProFinance
Changes in interest-free long-term debt
Equity, increase (+) / dividends (-)
Changes in short-term borrowings
Total cash flow

Left above, Income statement.
To the right Cash flow statement.

Pressing the button gives following dialog box:



Open *Financing files* are listed. Select the one you want to import from. If none is listed, please open one. The currency and unit of the 2 files are listed here. Invest for Excel converts automatically, when importing.

The *Clear* function can be used for removing of imported values.

Press OK. Now financing costs are updated to Income statement (income statement) and to Cash flow statement. Also loan withdrawals and repayments are updated in cash flow analysis. Balance sheet is updated with debt.

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EBIT; Operating income	**0**	**122 500**	**245 833**
(cumulative financial year)	0	122 500	245 833
% (cumulative financial year)		16,3%	21,4%
Financing income and expenses			
≡ Financing income and expenses			
! Financing income and expenses ProFinance	0	-47 495	-65 902
EBT; Income after financing items	**0**	**75 005**	**179 931**

Income statement (Income statement) is updated

Financial cash flow			
Financial income and expenses	0	-47 495	-65 902
Long-term debt, increase (+) / decrease (-)	1 339 647	-95 997	-191 993
Changes in interest-bearing long-term debt	1 339 647	-95 997	-191 993
≡ Long-term debt, increase (+) / decrease (-)			
! Changes in long-term debt, ProFinance	1 339 647	-95 997	-191 993
Changes in interest-free long-term debt			
Equity, increase (+) / dividends (-)	0	0	0
Changes in short-term borrowings			
Total cash flow	**339 647**	**-920 064**	**97 563**
Cumulative total cash flow	339 647	-580 417	-482 854

Cash flow statement is updated

Liabilities			
Long-term liabilities	1 243 650	1 051 657	859 663
Interest-bearing long-term debt	1 243 650	1 051 657	859 663
Interest-free long-term debt	0	0	0
Short-term liabilities	95 997	218 534	207 232
Accounts payable	0	38 889	44 722
Total liabilities	1 339 647	1 270 190	1 066 896
SHAREHOLDERS' EQUITY AND LIABILITIES	**1 339 647**	**1 325 694**	**1 255 549**

Balance sheet is updated.

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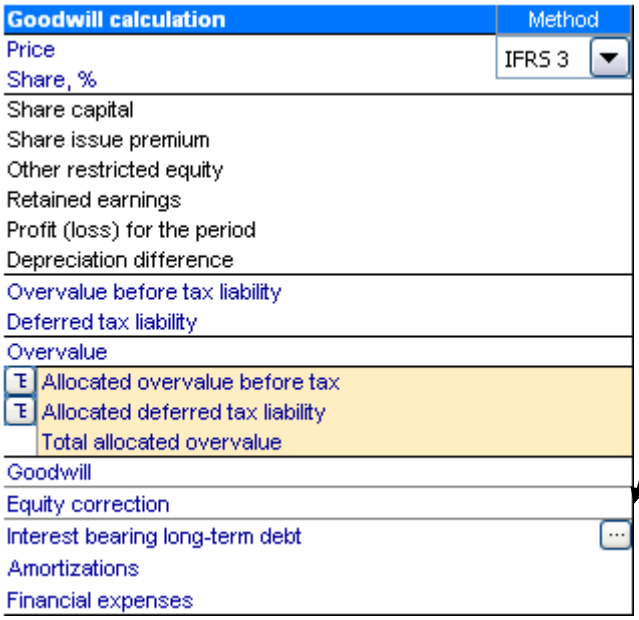
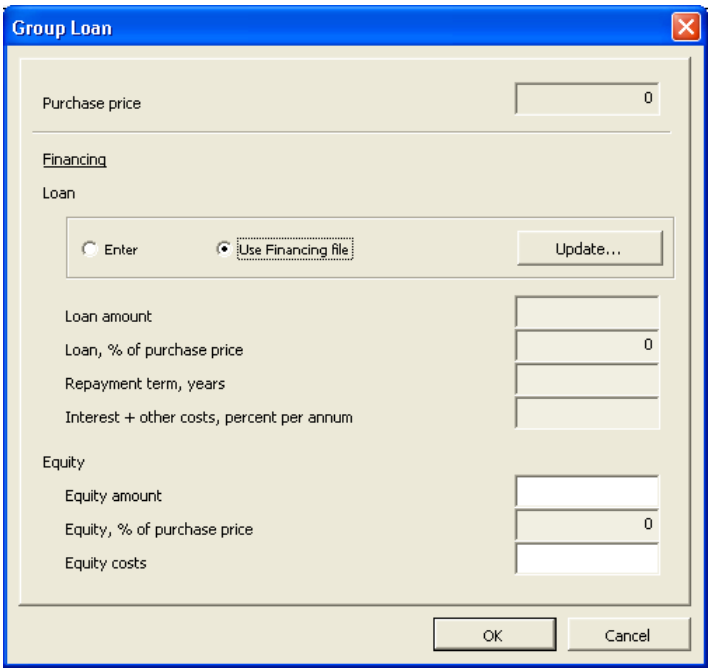
When working with ACQUISITIONS you may also use the Financing module for planning a financing for the acquiring corporation.



To update: In the acquisition template, in the Goodwill calculation, you will find a button for financing of acquisition.

Press the button. A Dialog box will appear:



Select “Use Financing file”, and press Update…

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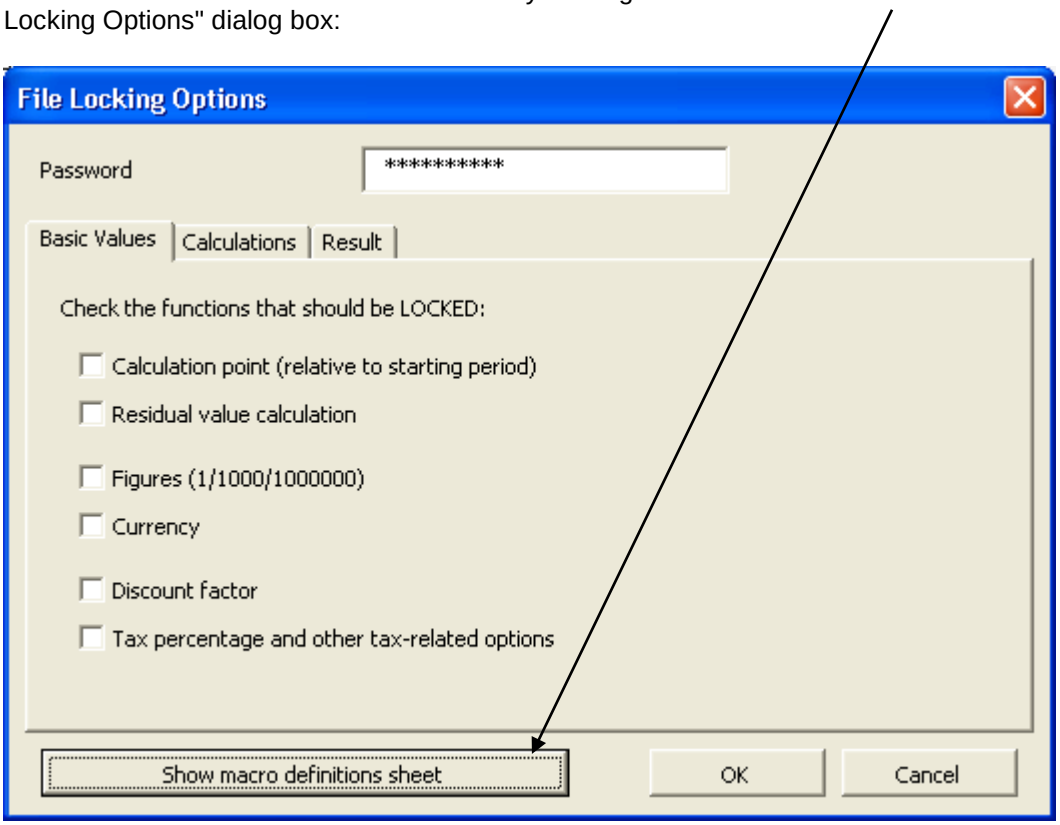
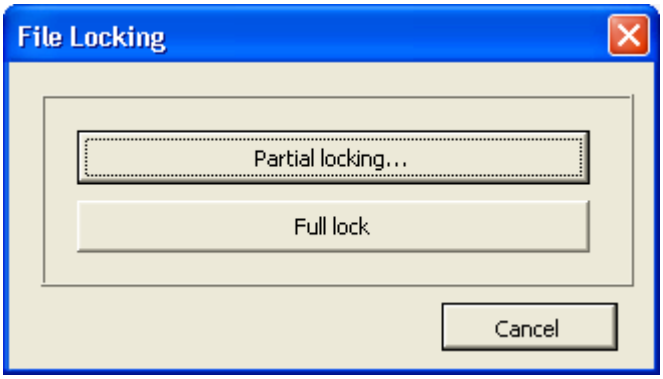
14 Custom macros

Use the macro definitions sheet to use macros with the calculation file.

The macro definitions sheet can be shown by clicking "Show macro definitions sheet" in the "File Locking Options" dialog box:



The dialog box is opened by pressing the button in Basic values and selecting "Partial locking":



If a password has been entered for the locking settings of the file, you need to enter the password before the "File Locking Options" dialog box is shown.

The macro definitions sheet can be hidden by pressing the button in the upper right corner of the macro definitions sheet.

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Custom macros can be assigned to buttons etc. on your own sheet without direct linking by the use of the macro definitions sheet:

Macro workbook name	Term change macro	Description (optional)
Personal.xls	**TermChangeMacro**	Updates the columns in my sheets when calculation term is changed.
Assignable macros	Macro to run in Personal.xls	Description (optional)
AssignableMacro01	**OutlineMySheet**	Outlines my sheets (Buttons 1-4)
AssignableMacro02	**ShowHideResidual**	Shows/hides residual column my sheet (Residual button)
AssignableMacro03	**PrintReport1**	Prepares and prints report 1 (button Report 1)
AssignableMacro04	**PrintReport2**	Prepares and prints report 2 (button Report 2)
AssignableMacro05		
AssignableMacro06		
AssignableMacro07		
AssignableMacro08		
AssignableMacro09		

Enter the name of file holding your macros under "Macro workbook name":

Macro workbook name
Personal.xls

Note that the file is assumed open when a macro is run.

If you want to run a macro of your own after a calculation term change in Invest for Excel, enter the name of the macro under "Term change macro":

Term change macro
TermChangeMacro

The specified macro workbook should contain the macro:

Personal.xls

```
Option Explicit

' These macros used with the custom sheeta in the Invest for Excel investment file
' Contact info: thisis.me@mycaompany.com

Const mSheetPassword = "ThePassword"    ' General sheet password

Sub TermChangeMacro()
' This macro is run after a calculation term in the company template
' Updates the custom sheets periods to correspond to Calculation sheet
Dim intMyCol1 As Integer                ' First column (after zero period)
Dim intMyCol2 As Integer                ' Last column (before residual)
Dim intMyNoOfCols As Integer            ' Number of columns
Dim iTemp As Integer, sTemp As String   ' Temporary variables
Dim iTemp2 As Integer                   ' More temporary variables
Dim intCalcSheet As Integer             ' Calculations sheet index
Dim intZeroCol As Integer               ' Zero column index in calculations sheet
Dim intResidualCol As Integer           ' Residual column in calculations sheet
Dim intCalcCol1 As Integer              ' First column, calculations sheet
Dim intCalcCol2 As Integer              ' Last column, calculations sheet
Dim intCalcNoOfCols As Integer          ' Number of columns, calculation sheet
Dim intMySheet As Integer               ' Sheet index
Dim fWasProtected As Boolean            ' Protect sheet afterwords only if it was protected
'*****************************************************************
On Error Resume Next                    ' Don't stop for any error
'*****************************************************************
' First custom sheet (Investment file assumed active)
intMySheet = iReturnMySheet(1, ActiveWorkbook)
Err = 0
With Sheets(intMySheet)
    If Err <> 0 Then Exit Sub           ' No sheet found
```

Note! The term change macro should be carefully programmed, so that any program code execution of Invest for Excel is not compromised.

A total of 99 assignable macros are reserved for buttons etc. on your own sheets in an calculation file. To use an assignable macro, follow these steps:

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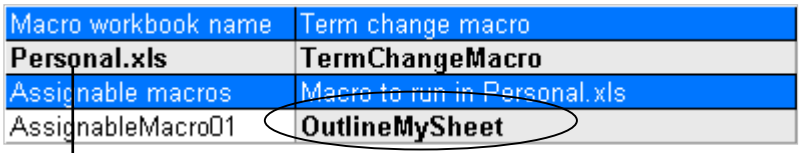
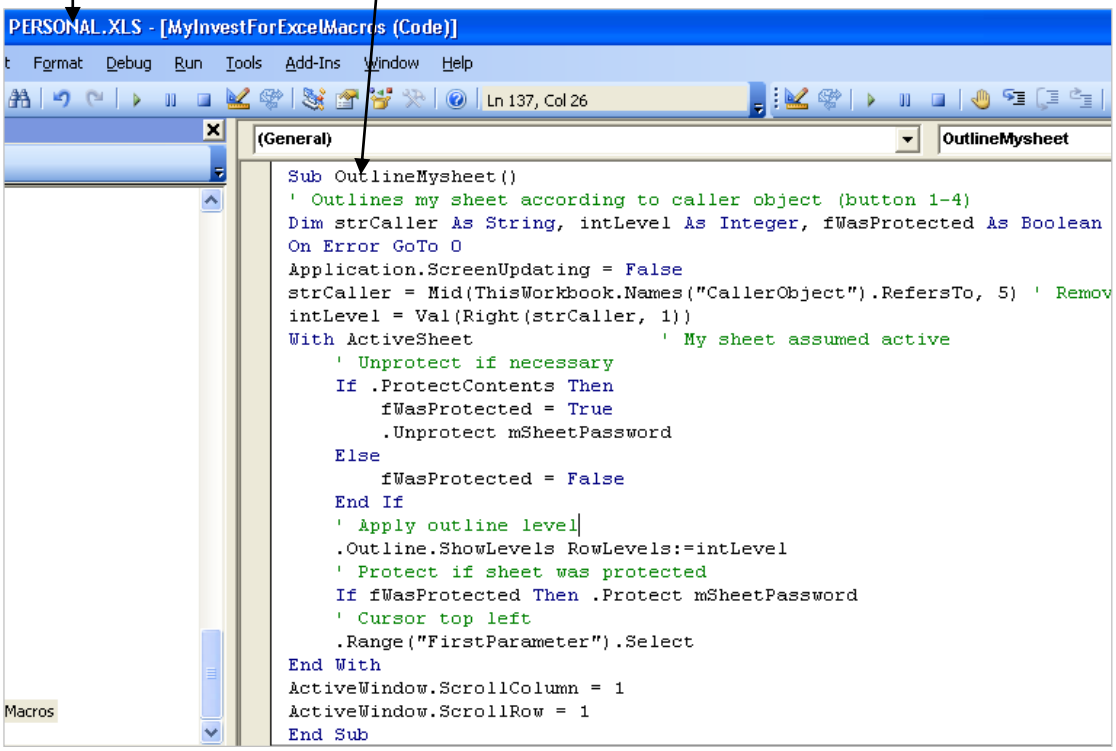
Enter the name of the macro:

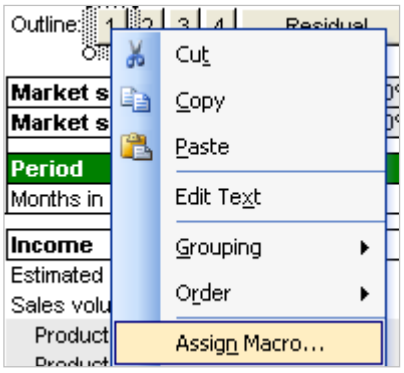


The macro should be located in the specified macro workbook:



Enter, for example, a button (or buttons) on your own sheet:

Assign a macro to the button(s):



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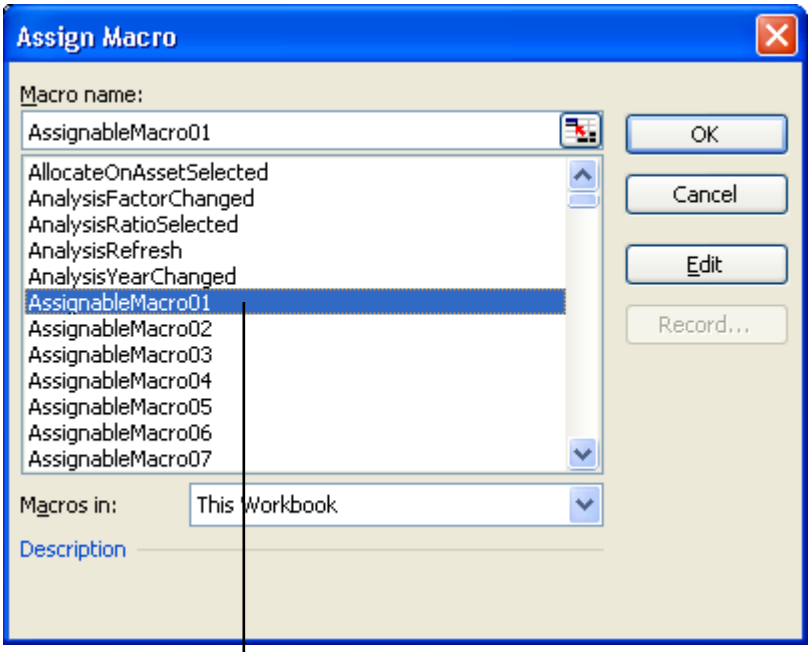
Select the assignable macro:



The selected assignable macro should correspond to the one that you used in the macro definitions sheet:

Macro workbook name	Term change macro
Personal.xls	**TermChangeMacro**
Assignable macros	Macro to run in Personal.xls
AssignableMacro01	**OutlineMySheet**
AssignableMacro02	**ShowHideResidual**
AssignableMacro03	**PrintReport1**
AssignableMacro04	**PrintReport2**

When the button is clicked in this example, the "OutlineMySheet" macro located in Personal.xls is excecuted.

The advantage of assigning custom macros using the macro definitions sheet is that no linking between files is required.

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15 Features of Invest for Excel

Features of Invest for Excel	Enterprise	Pro	Standard	Lite
Invest for Excel *Lite*				
Flexible definition of calculation term	■	■	■	■
Asset depreciation and realization calculation	■	■	■	■
Income statement for specifying income and costs	■	■	■	■
Working capital changes calculation	■	■	■	■
Cash flow statement	■	■	■	■
Investment performance ratios: NPV, IRR, payback etc.	■	■	■	■
A great variety of sensitivity analysis	■	■	■	■
Break-even can easily be found on input variables	■	■	■	■
Invest for Excel *Standard*				
Comparison of investment alternatives	■	■	■	
Marginal effect	■	■	■	
Function for creating custom graphics and sensitivity analysis	■	■	■	
Flexible adding of input and calculation rows	■	■	■	
Invest for Excel *Pro*				
Balance sheet	■	■		
Investment proposal form	■	■		
Currency conversion	■	■		
Languages (English, German, Swedish, Finnish, Polish, Spanish, Russian)	■	■		
Locking (partial/full)	■	■		
Rolling forecast	■	■		
Renaming of headers, rows and key factors	■	■		
Invest for Excel *Enterprise*				
Project financing module	■			
Consolidation, the cooperative action of several investments	■			
IFRS and US Gaap impairment test	■			
Acquisitions and business simulations	■			
Perpetuity / extrapolation term	■			
Profitability calculation based on Free Cash Flow to Equity (FCFE)	■			
SharePoint server integration	■			

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